

Issue 554

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THE PREVENTIVE MAINTENANCE MONTHLY





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TB 43-PS-554, 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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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 writeto:

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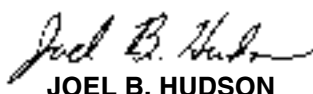
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By Order of the Secretary of the Army:

DENNIS J. REIMER

General, United States Army Chief of Staff

Official:



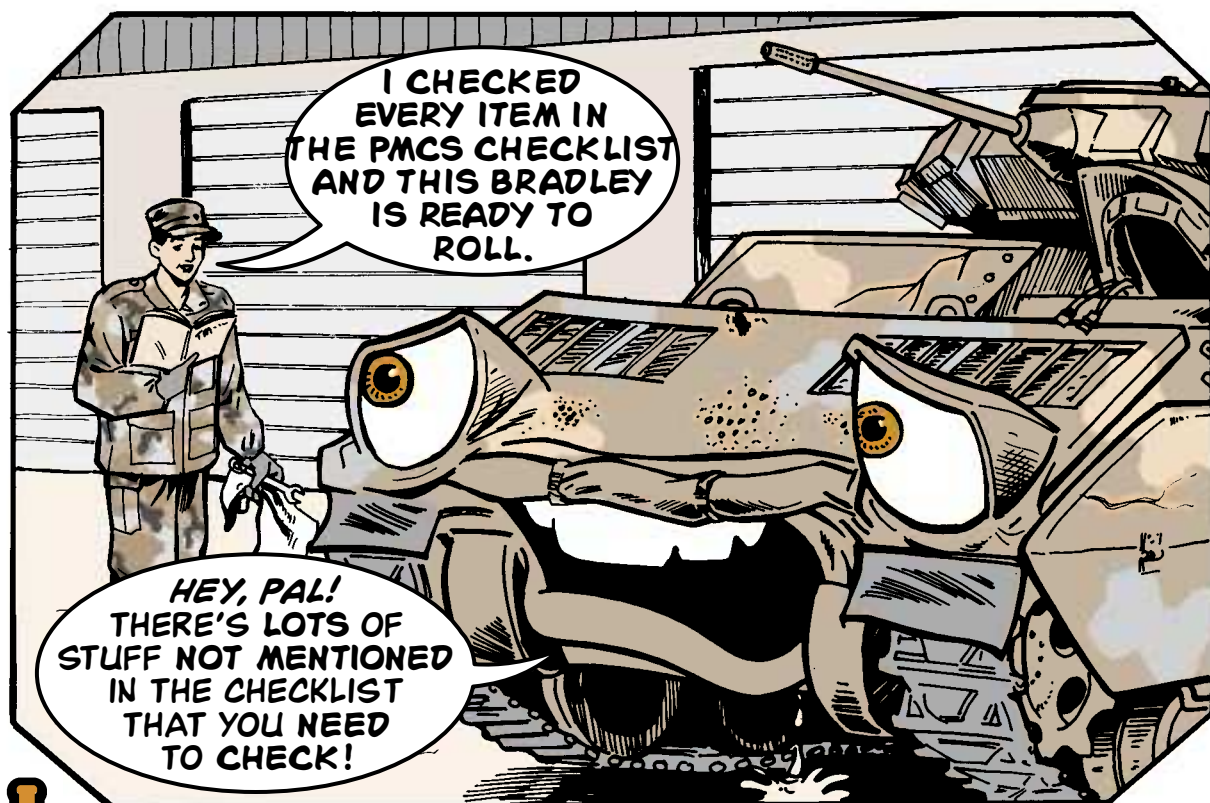
JOEL B. HUDSON

Administrative Assistant to the Secretary of the Army
05243

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THE COMPLETE PMCS



It may seem like your equipment is good to go after you pull PMCS and don't find any faults listed on your TM's PMCS checklist.

But a PMCS checklist usually covers only the most critical checks and services. It doesn't cover everything. But some equipment operators think if it's not listed in their TM's PMCS chart, they don't have to check it out during every PMCS.

They're wrong. In fact, sometimes they're dead wrong.

A lot of stuff not mentioned in the checklist is important, too. A leaking hydraulic line, loose cable connector, broken weld or heavy corrosion are surely just as important as a worn fan belt.

The intro to most itemized PMCS checklists tells you to look for these

and other problems as you inspect each item on the checklist:

- **Loose or missing bolts, nuts or screws**
- **Cracked or rusted welds**
- **Frayed wiring, loose or broken connectors**
- **Leaking or worn hoses and fluid lines**
- **Signs of corrosion**

If you spot any of these problems that you can't fix yourself, report them just like you do when you find problems with specific items on your PMCS checklist.

Performing only those checks and services spelled out on the PMCS checklist just won't cut it. PMCS is more than that. Much more.

It's making sure that everything is good to go, whether it's spelled out on your equipment's PMCS chart or not.

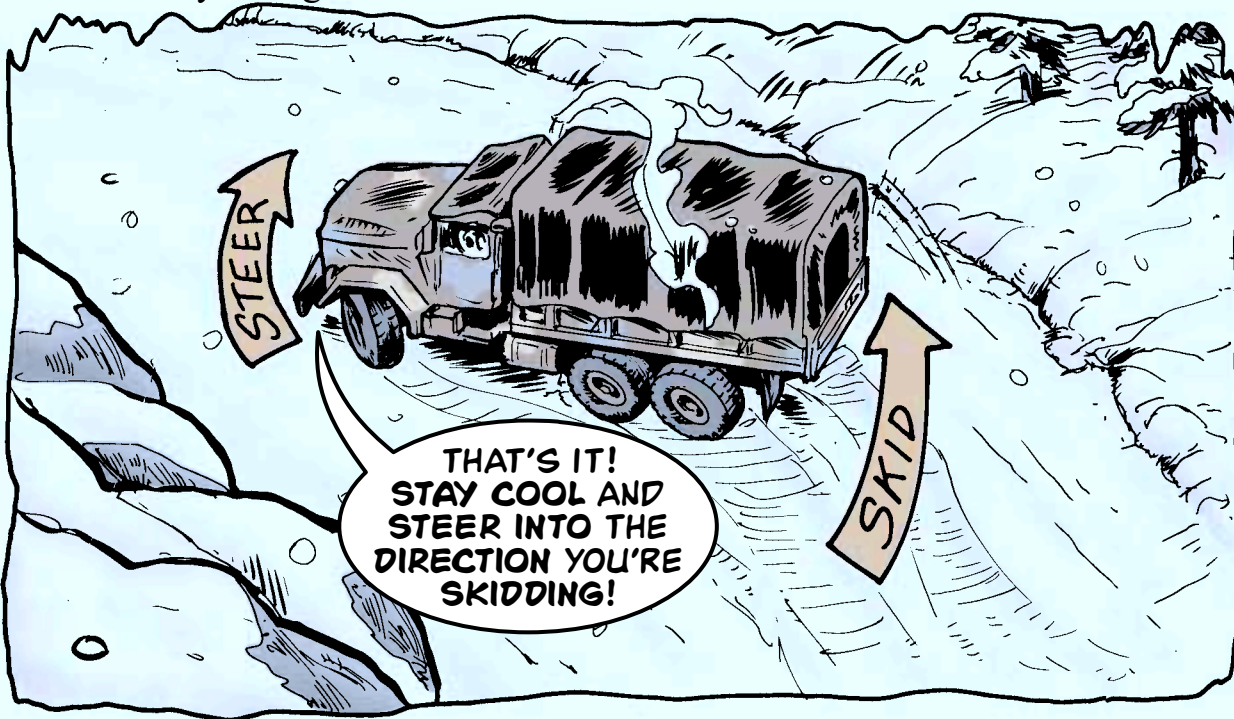
It's that simple.

WINTER DRIVING TIPS




- Adjust your speed to road conditions. Steep hills, sharp curves, ice, or snow-covered roads mean trouble.

On a slick road, you can't count on your brakes to stop you. Stomp on the brakes and you're gonna slide.



If you do skid, steer in the direction the rear of the vehicle is headed. If you're driving a tractor-trailer, steer away from the direction of the sliding trailer. Remember, don't oversteer! Steer it just enough to correct your skid. Stay cool.

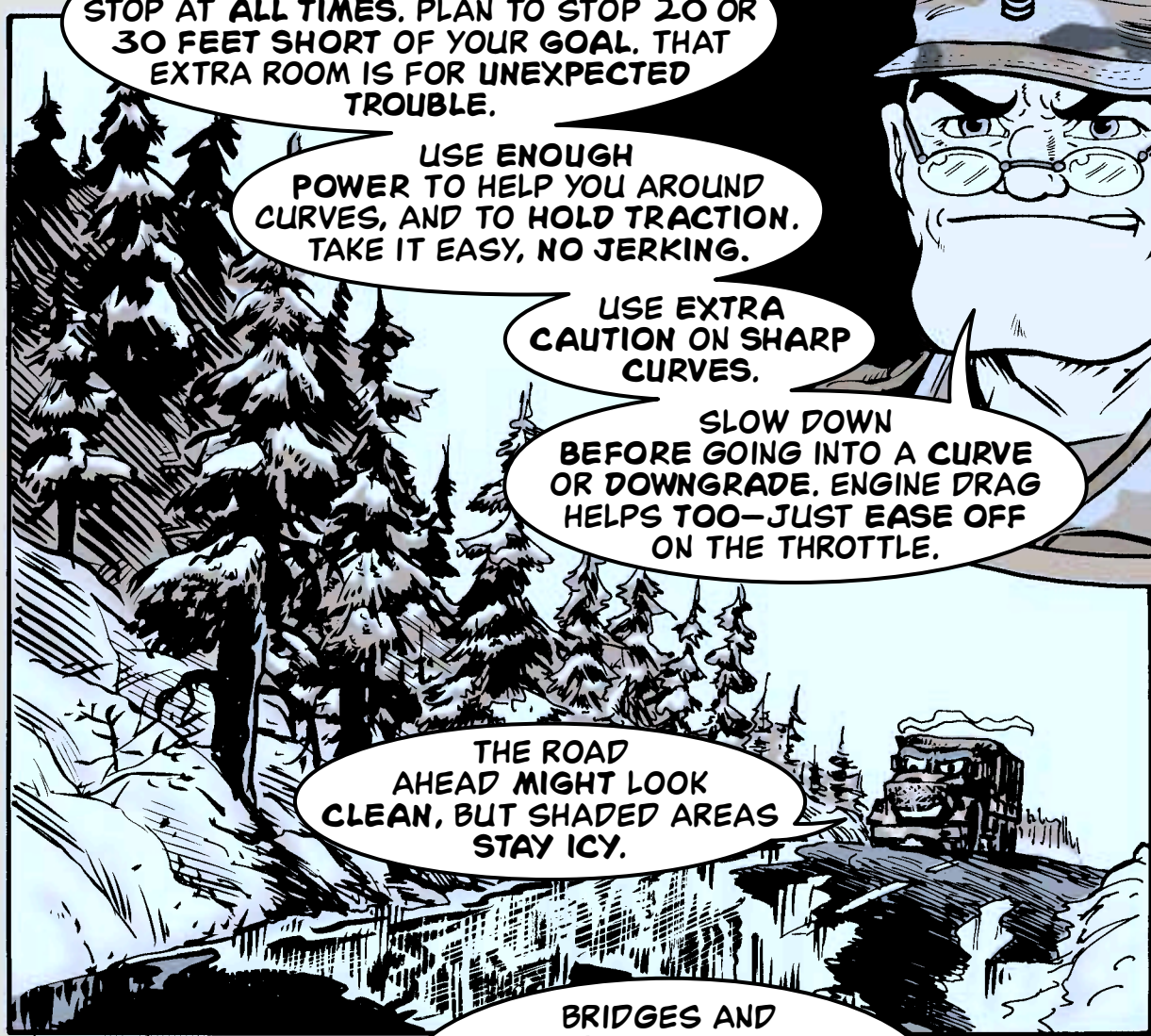


LOOK AHEAD, KEEP
YOUR EYES MOVING—BE READY TO
STOP AT ALL TIMES. PLAN TO STOP 20 OR
30 FEET SHORT OF YOUR GOAL. THAT
EXTRA ROOM IS FOR UNEXPECTED
TROUBLE.

USE ENOUGH
POWER TO HELP YOU AROUND
CURVES, AND TO HOLD TRACTION.
TAKE IT EASY, NO JERKING.

USE EXTRA
CAUTION ON SHARP
CURVES.

SLOW DOWN
BEFORE GOING INTO A CURVE
OR DOWNGRADE. ENGINE DRAG
HELPS TOO—JUST EASE OFF
ON THE THROTTLE.



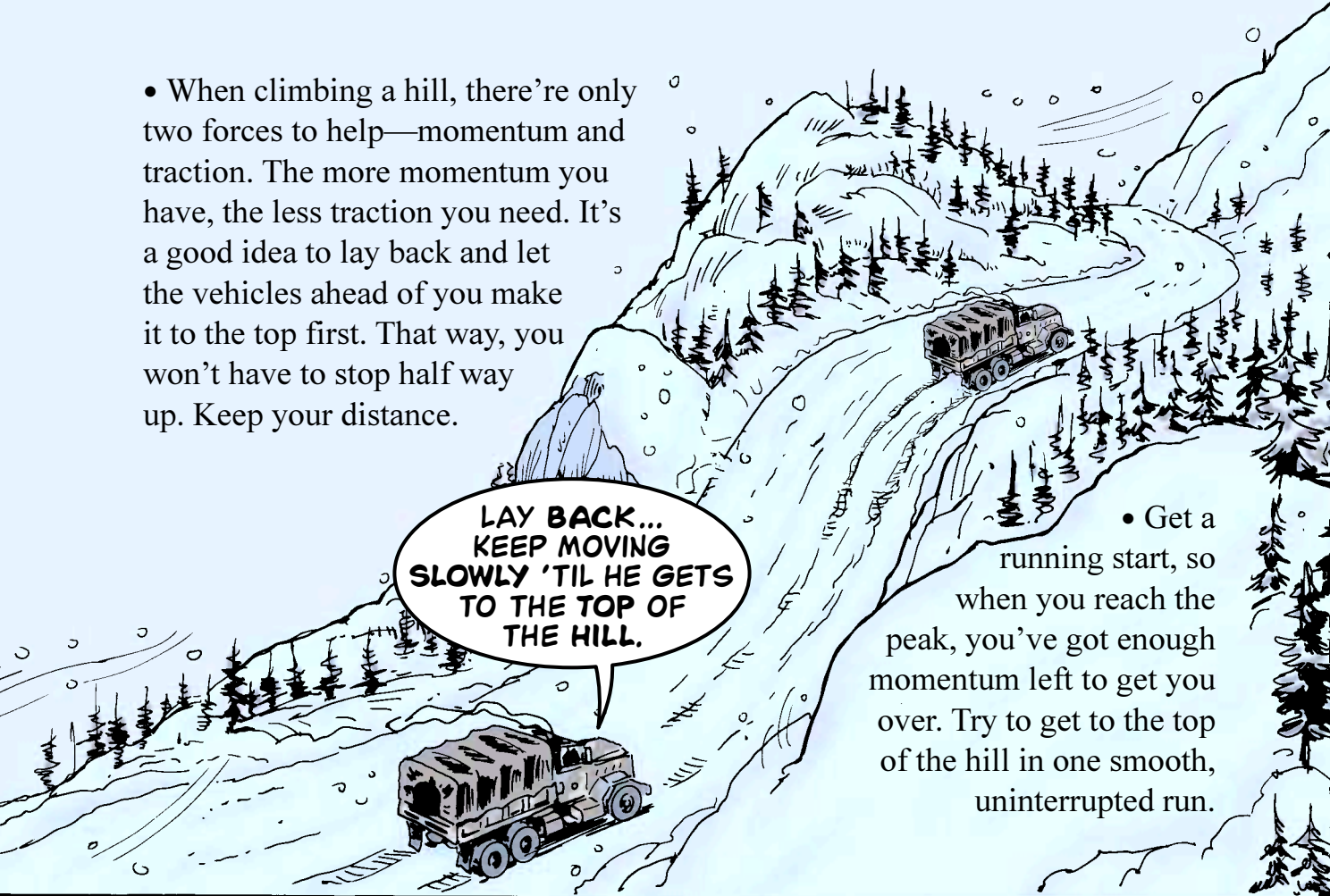
THE ROAD
AHEAD MIGHT LOOK
CLEAN, BUT SHADED AREAS
STAY ICY.

BRIDGES AND
OVERPASSES FREEZE
FIRST. COLD AIR PASSES UNDER
THEM AND WATER WILL
FREEZE FAST.



TO CROSS
SAFELY, GO EASY
ON THE THROTTLE, WITH
NO BRAKING.

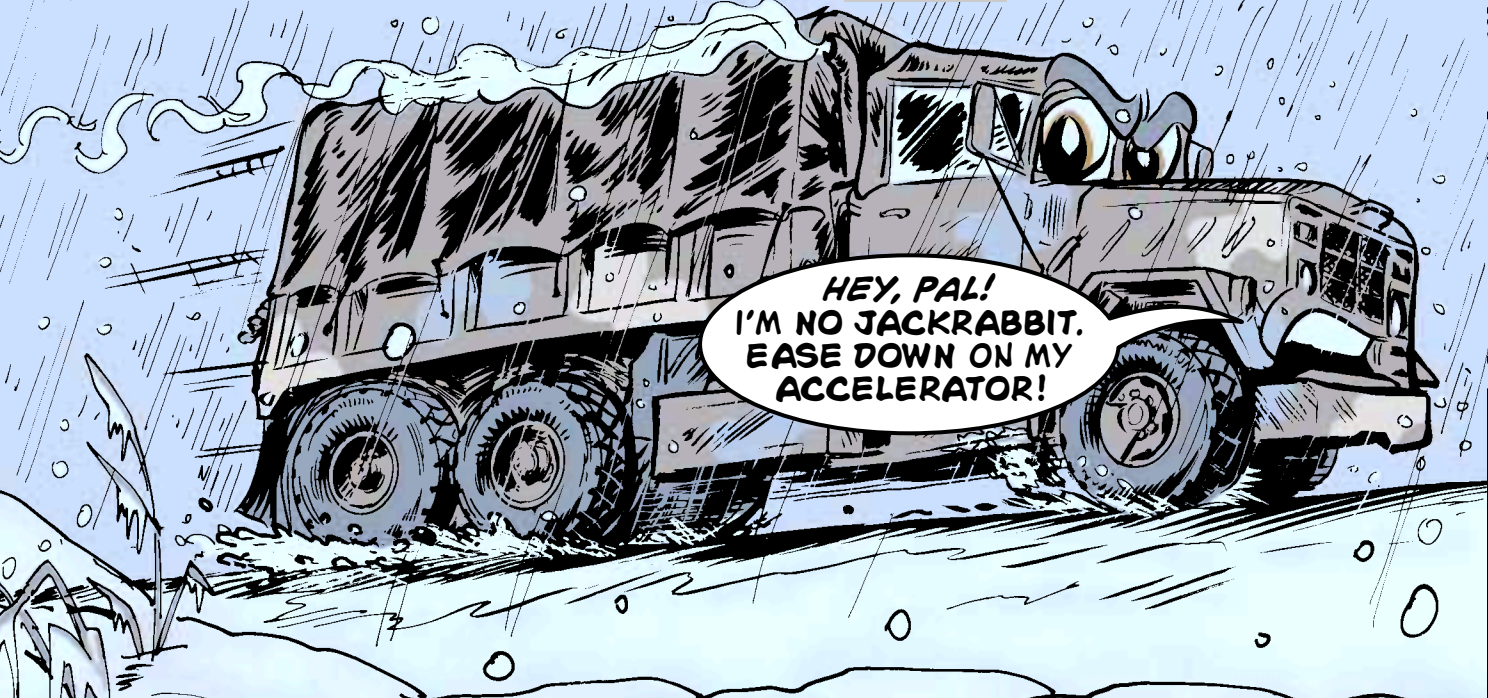
- When climbing a hill, there're only two forces to help—momentum and traction. The more momentum you have, the less traction you need. It's a good idea to lay back and let the vehicles ahead of you make it to the top first. That way, you won't have to stop half way up. Keep your distance.



**LAY BACK...
KEEP MOVING
SLOWLY 'TIL HE GETS
TO THE TOP OF
THE HILL.**

- Get a running start, so when you reach the peak, you've got enough momentum left to get you over. Try to get to the top of the hill in one smooth, uninterrupted run.

- Keeping your tires in good condition and properly inflated helps traction. Be sure your load is evenly distributed. Avoid poor driving—like jackrabbit starts, sudden stops, and sharp turns—that breaks traction.



**HEY, PAL!
I'M NO JACKRABBIT.
EASE DOWN ON MY
ACCELERATOR!**

- Watch that shift, particularly the downshift. It can break your grip on the road. Make each shift as smooth as possible. With a manual transmission, you

might even get over the top of the grade using one or two gears higher than you'd use under ideal conditions.

When you're on a dry road you can shift down to a lower gear using your engine as a brake. But on ice, remember that the engine holding back your wheels is applying force to them just as brakes do. It can throw you into a skid. If you feel your truck start to slide, speed up your engine until your wheels are no longer sliding.

If you have to use your hydraulic brakes...tap, tap, tap'em.

If your vehicle has air brakes, apply light, steady pressure.

- Going into curves, slow down before you enter the curve, steer smoothly and evenly—no jerking. Get the feel of the curve.
- Under icy conditions, it can take three to 12 times as far to stop. Give yourself plenty of room to get stopped. Let the power train slow you down.

NEVER GO TOO FAST OR THE CENTRIFUGAL FORCE WILL SLING YOU OFF THE ROAD.

NEVER SLAM ON THE BRAKES! FRONT WHEELS LOCK WITH HEAVY BRAKING, AND YOU LOSE STEERING.

USING THESE TIPS, EVEN THE WORST WEATHER CONDITIONS WILL BE EASIER TO HANDLE.



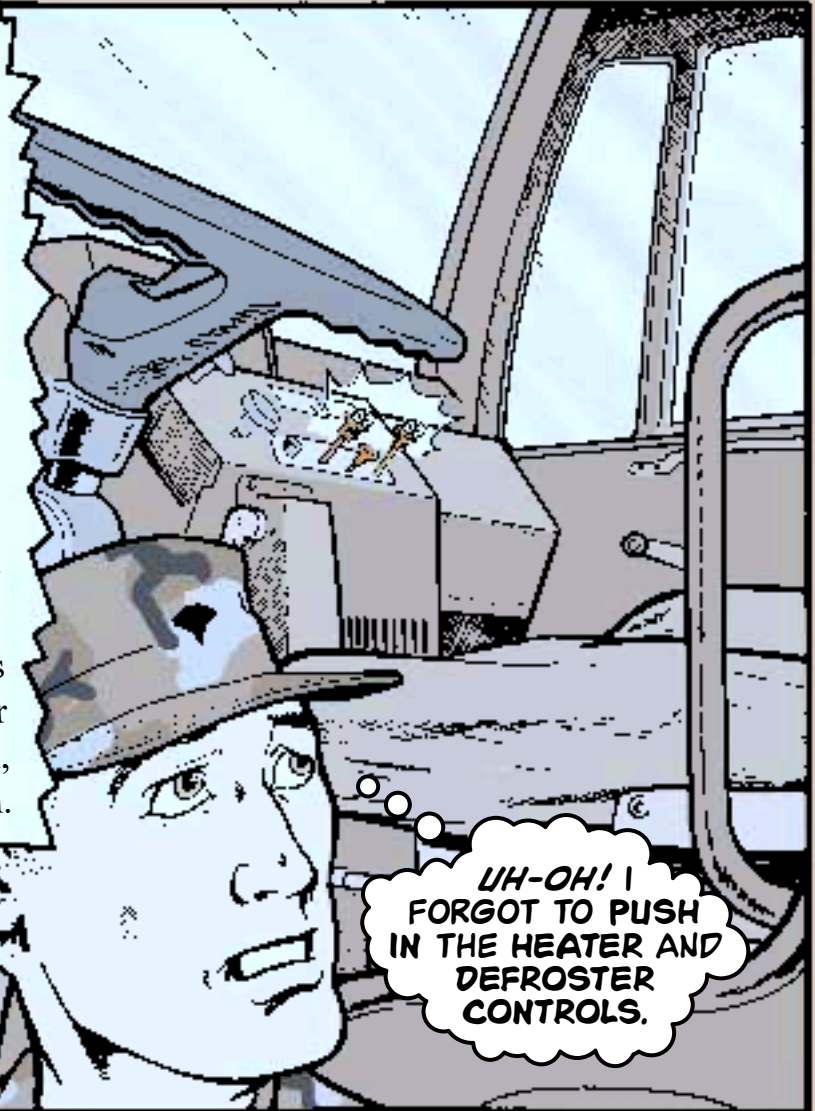
Protect Heater Controls

When you FMTV cowboys mount up for a mission, make sure you give wide berth to the heater and defroster controls on the dashboard.

The push/pull controls stick out like sore thumbs unless they've been pushed in at shutdown. A good kick from a passenger bends the controls, which can leave you cold or fogged in.

'Course, if the controls are pushed in as a matter of procedure at shutdown, you won't have a problem.

Got it?



Coolant Overflow No Handhold

Make a note, mechanics and drivers, that the coolant overflow tank is no handhold for climbing into the engine area of an FMTV.

The overflow hose connector is attached right at the cap, and when you reach for the cap as a handhold, it's bye-bye connector.

That puts your truck out of action until the connector is reattached or another overflow tank is installed.

Gripping hose breaks connector loose



Keep Engine Clear of Debris

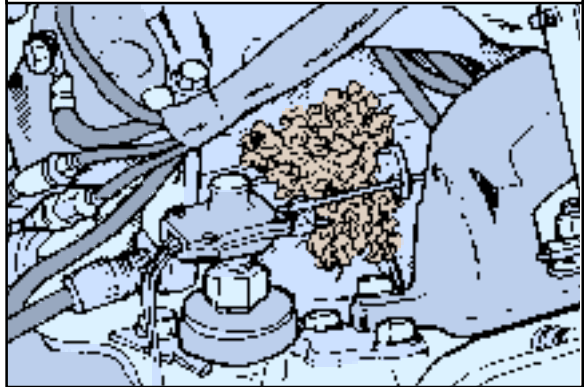
You know how every once in a while you have to take your HMMWV out into the boonies? How the weeds, leaves, sticks, dirt and mud you drive through get crammed into every opening on the underside of the truck?

Well, some of that stuff can find its way into the engine compartment, like between the intake manifold and the engine block.



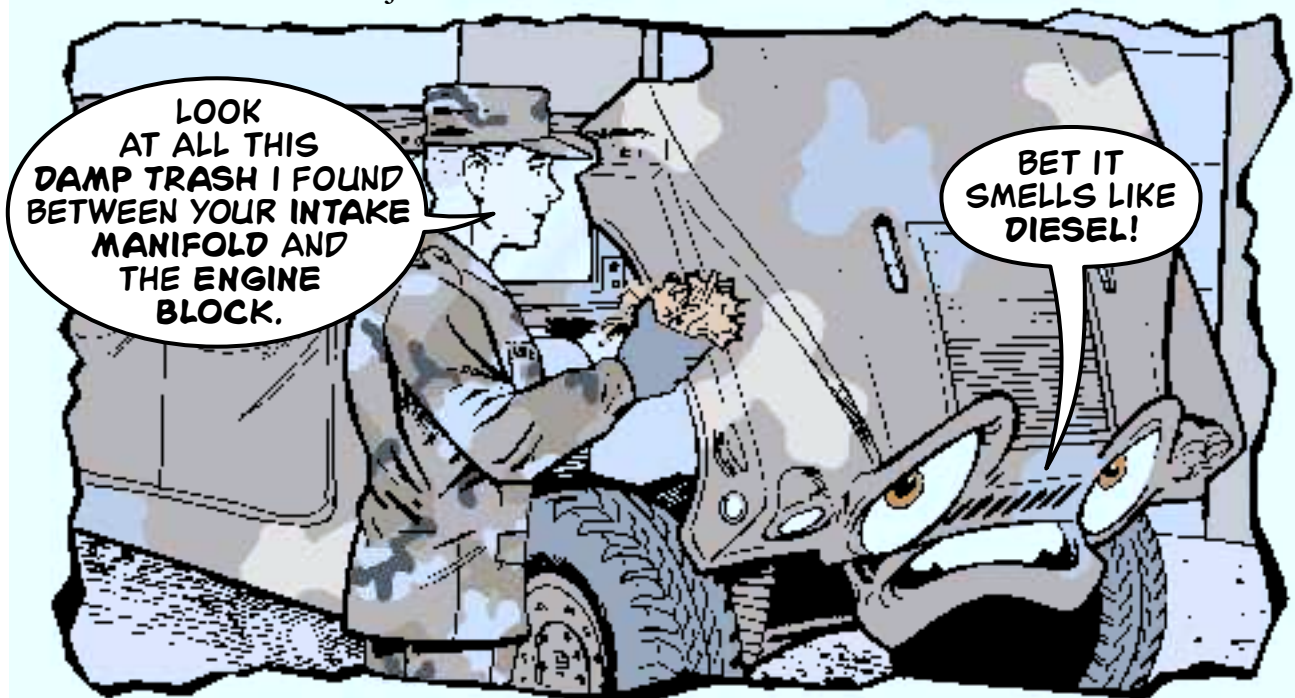
Very few folks ever look to see what's lurking there—and that can lead to leaks at the fuel injector lines.

...and gets packed under intake manifold at rear of engine

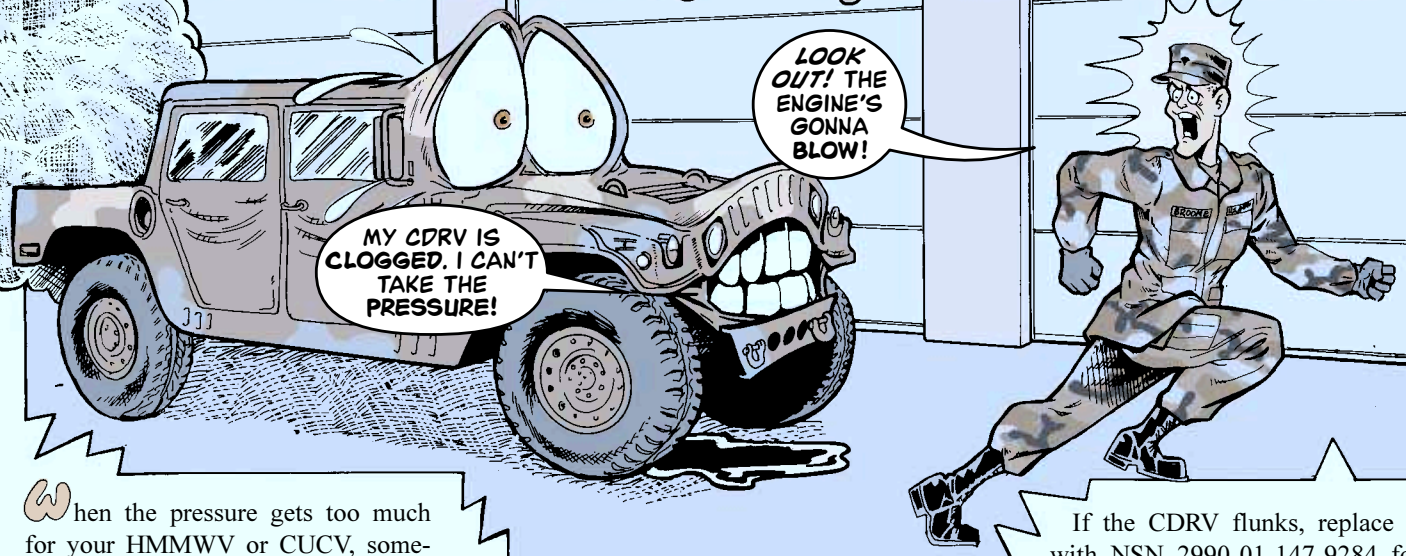


So, TACOM is adding this semi-annual check to the PMCS. It'll show up under "Body" on Page 2-6 in TM 9-2320-280-20-1:

Make sure the engine compartment is clean and free of debris. Give particular attention to the rear of the engine. It may be necessary to remove the engine access cover inside the vehicle to ensure this area is clean.



Can't Take the Pressure?



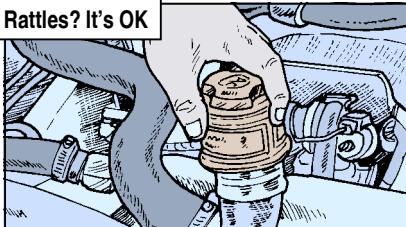
When the pressure gets too much for your HMMWV or CUCV, something's got to give.

A clogged crankcase depression regulator valve (CDRV) on a HMMWV or CUCV, or a plugged-up oil filler cap on your CUCV, lets pressure build in the crankcase. What gives are oil pan and valve cover gaskets and crankcase seals, which can lead to a blown engine.

Oil Filler Cap

The CUCV oil filler cap is easy to test. Take it off and shake it. If it rattles,

Rattles? It's OK



it's OK. If it doesn't, replace it. Do this every semiannual service.

CDRV

Item 7 in Table 2-1 of the HMMWV's TM 9-2320-280-20-1 says to check the CDRV every six months. Item 2 in Table 2-1 of the CUCV's TM 9-2320-289-20 says to check its CDRV annually.

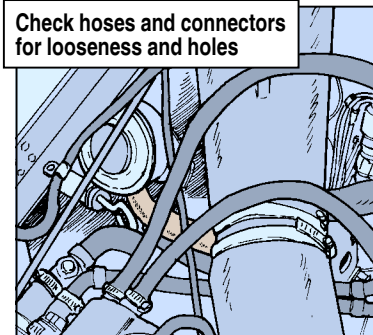
But don't wait if you see oil on the engine or on the ground after the truck's been running or if you see blue exhaust smoke. Those signs tell you the CDRV's probably clogged.

Repairmen, use a manometer to test the HMMWV's CDRV for two to five inches of vacuum at 2,000 rpm. The procedure's on Page 3-14 in TM 9-2320-280-20-2.

If the CDRV flunks, replace it with NSN 2990-01-147-9284 for the HMMWV. There is no test for the CUCV's CDRV. If you suspect it's bad, replace it, NSN 2990-01-147-9284.

Check the CDRV connectors and hoses, too. If they are loose or the hoses have holes, dirt will plug the CDRV. Tighten or replace them if necessary.

Check hoses and connectors for looseness and holes



Offset Antenna Rub

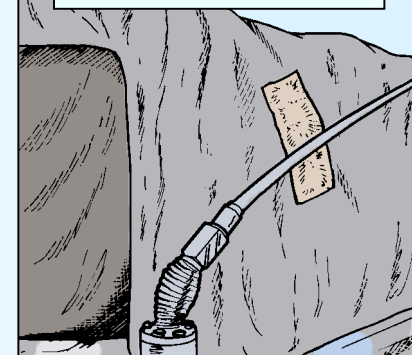
Dear Editor,

The units we support have a problem with antennas rubbing holes in the HMMWV's cargo cover.

For units that don't have the offset mount, there's a simple fix to take the rub out.

Cut out an 8x2-in patch from an old piece of canvas. Patch over the worn spot. Use a rubber-based adhesive to hold the patch in place. NSN 8040-00-298-1946 gets an 8-oz can.

Rear-mount antenna rubs canvas



SGT Gene Armstrong
ECS#6, MTARNG
Helena, MT



Less Algae! Tastes Great!

Too many units wait until the eleventh hour before a field exercise to clean their water trailer's tank. Or they leave water in the tank for months at a time after the last exercise.

Cleaning the tank improves the taste of the water and keeps the tank safe to use. TM 9-2330-267-14&P says to clean the tank annually, or when the medics tell you the tank is contaminated. But why wait? You'll be drinking the water, too.

Here are some PM tips to keep you from ending up with a cup of slimy, rusty, metallic-tasting water to drink.

- After a field exercise, empty the tank completely. Water left in the tank causes rust, mineral deposits and algae buildup.

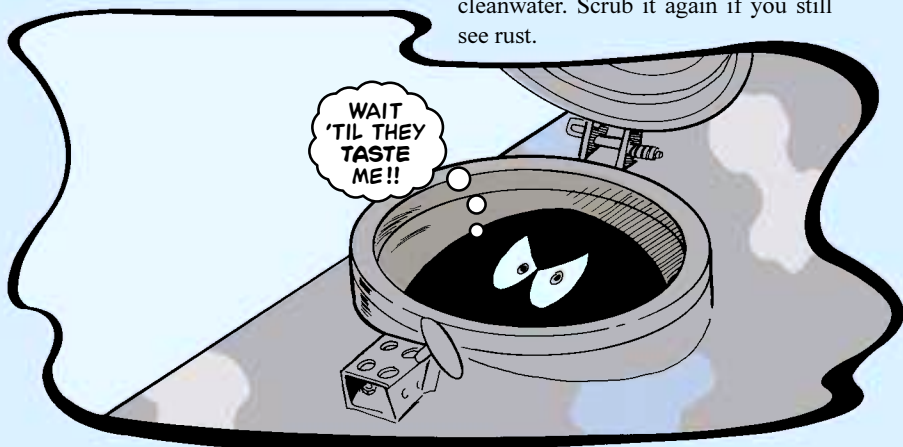
- To stop deposit buildup, every three months pour in eight gallons of vinegar, NSN 8950-01-079-3978, and leave it for 5-6 hours. Then empty the tank and flush it with clean water.
- Clean the tank more often during the summer. Make sure you drain the tank completely between uses.

Rusty Stainless Steel

If the water from a stainless steel tank has a rusty, metallic taste, eyeball the weld joints in the tank for rust.

Scrub away rust with a solution of water and scouring powder, NSN 7930-01-423-1147. Always use a nonmetallic, nylon brush. You can get one with NSN 7920-00-061-0038.

Flush the tank thoroughly with cleanwater. Scrub it again if you still see rust.



Missing Heater Parts

Some of the parts for the hot water heater on your 5-ton trucks were left out of TM 9-2320-272-20P.

HERE ARE THE
ONES YOU NEED...

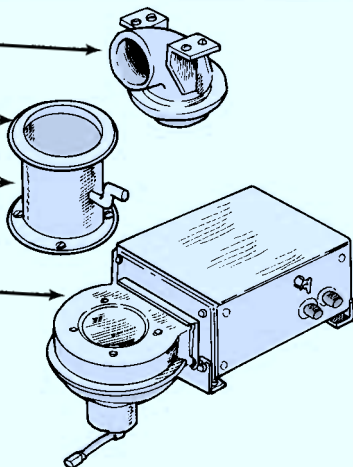
Ventilator, NSN
2540-01-083-1109

Seal, NSN
5330-01-108-9119

Canister, NSN
2540-01-138-0925

Heater, blower motor,
NSN 6105-00-512-9225

Adhesive (for seal),
NSN 8040-00-543-7170



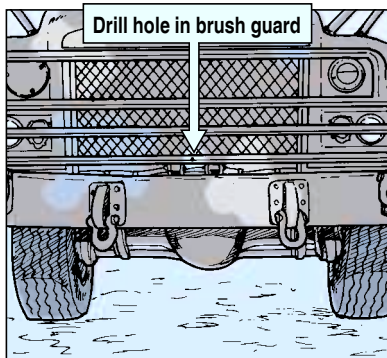
Brush Guard Drill 'n' Drain

That hollow brush guard on M915A2, M916A1, M916A2 and M917A1 trucks is ripe for corrosion and damage because it fills with water.

The water causes rust in warm weather and becomes ice in the cold. Freezing water can split the tubing.

Take care of both problems by drilling a 1/4-in hole in the bottom of the guard's cross rail.

Use green CARC paint, NSN 8010-01-229-7546, for touch-up.



Wrenchingly Good PM

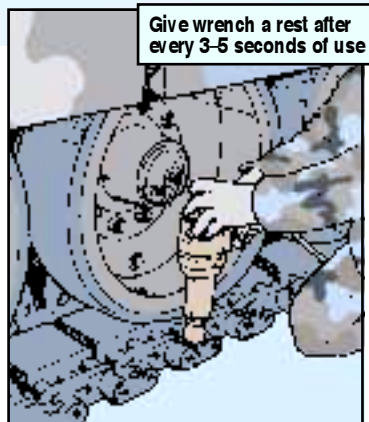


For crewmen, tank track maintenance is a lot easier with an electric impact wrench, NSN 5130-01-363-0964, that's in tip-top shape.

Proper use and good PM will ensure the wrench is ready the next time you need it. Here are a few things to remember:

Operation

❑ The impact wrench is a powerful tool that generates a lot of heat, even during normal operations. The manufacturer recommends a duty cycle of three to five seconds on and five to 10 seconds off



Free run the wrench for about 30 seconds after hard use. That will help get rid of excess heat.

❑ Always use the side handle to avoid covering the air vents with a hand or glove.

❑ Keep the wrench square with the fastener being removed or installed.

❑ Never let the wrench hang free from a fastener or use a pry bar to get it loose.

❑ If the wrench won't break the hardware loose within five seconds, **stop!** The wrench will burn up if you force it to loosen nuts and

bolts that are too tight. Use an extension handle, socket, and socket wrench from the tank's basic issue items (BII) to break the hardware loose, then use the impact wrench to finish the job.

❑ When installing hardware, always thread it with your fingers first, then tighten with the impact wrench. Using the wrench to start nuts and bolts could cross-thread them and jam the hardware.

If the TM requires a specific torque for the hardware, use a torque wrench to finish tightening, not the impact wrench.

❑ Check the vents on the wrench's dust cover before operation. Clean away dust or other obstructions. Clogged vents will overheat the motor and burn it out, so keep the wrench out of dirt, sand and mud as much as possible.

Check vents for clogging



❑ Always wear safety glasses and use the blue retainer rings when operating the impact wrench.

Repair

Call in your mechanic to repair an impact wrench that's damaged or not functioning properly. He'll follow the procedures in Appendix F of the -20-1-5 TMs.

The most common problems are worn brushes and a bad switch. The brushes can be fixed with the brush repair kit, NSN 5977-01-384-4862.

After installing a new brush kit, free run the wrench for **15 minutes** in both directions. That seats the brushes and improves the electrical contact.

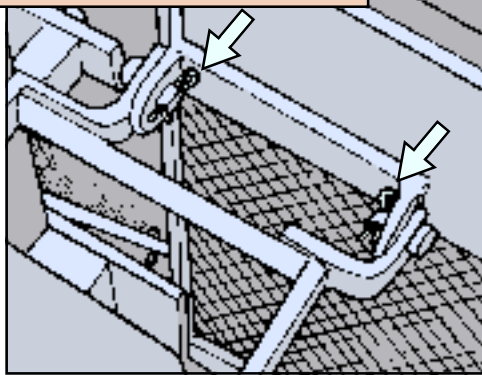
Replace a bad switch with NSN 5930-01-386-0531. Other repair parts are listed in Group 3100 of the -24P-1 TMs.

Hit Back with Frame PM

Loaders, empty shell casings can pack a wallop when they hit the spent ammunition frame in your M1-series tank. It takes good PM on your part to keep the frame rolling with those punches.

Make your first stop the pins that connect the frame to the spent ammunition screen guard.

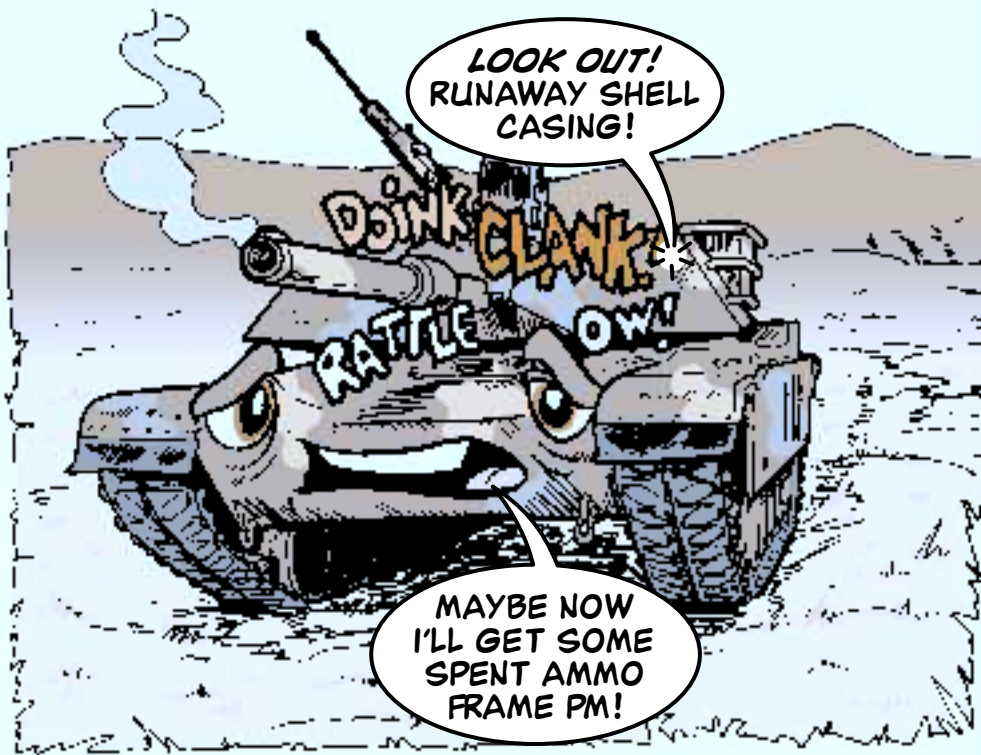
Check cotter pins for wear



frame's flipper and shield. Moisture from condensation and washing lead to rust, which freezes the flipper and shield everywhere but where they should be.

Have your mechanic replace any bars that are badly rusted. NSN 5340-01-185-9634 gets the flipper bar. The guard bar is NSN 5340-01-185-9635.

The bars should get a light coat of PL-M before installation and again during semiannual maintenance. That keeps everything moving smoothly.



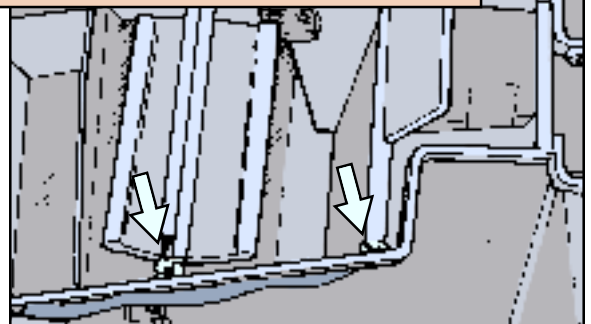
Both pins are held in place with cotter pins, NSN 5315-01-390-7088. Over time, the constant impact of the shell casings will break or loosen the cotter pins. When the cotter pins fall out, so do the frame pins. The frame can't contain the shell casings.

Keep an eye on the cotter pins. If they're loose, tighten 'em. If they look worn or damaged, replace 'em.

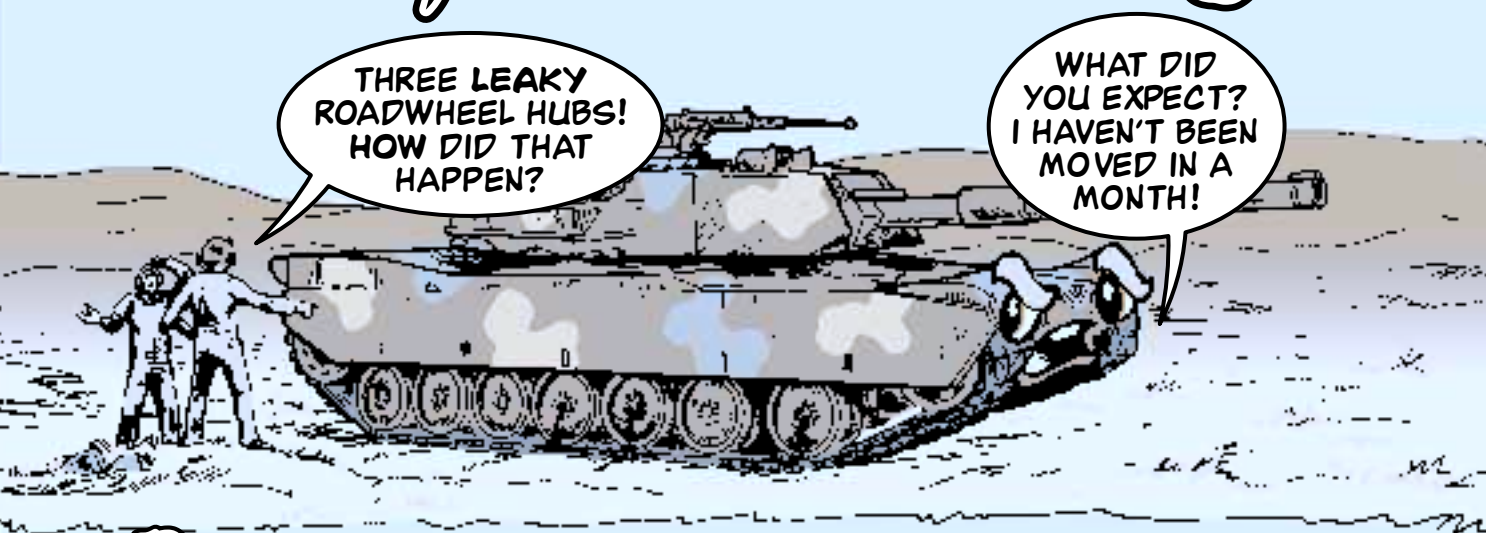
Your second stop is the pivoting bars on

t h e

Lube bars semiannually with PL-M



Keep 'em Moving



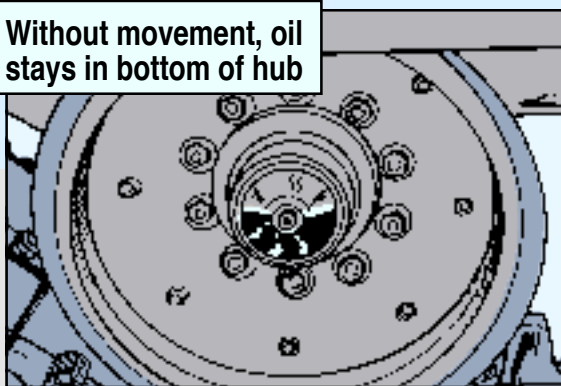
Drivers, if your M1-series tank hasn't moved for awhile, you could have a problem the next time you drive it.

When a tank sits for a long time—three to four weeks—the oil in the roadwheel hubs sits, too. The top part of the hub seal doesn't get lubed, so it dries out and cracks. You end up with leaking hubs during your next mission.

So, move your vehicle at least every two weeks. Just a few feet is enough

to turn the roadwheel hubs and get oil to the gaskets.

Without movement, oil stays in bottom of hub



Pin the Blame on IGV Pin

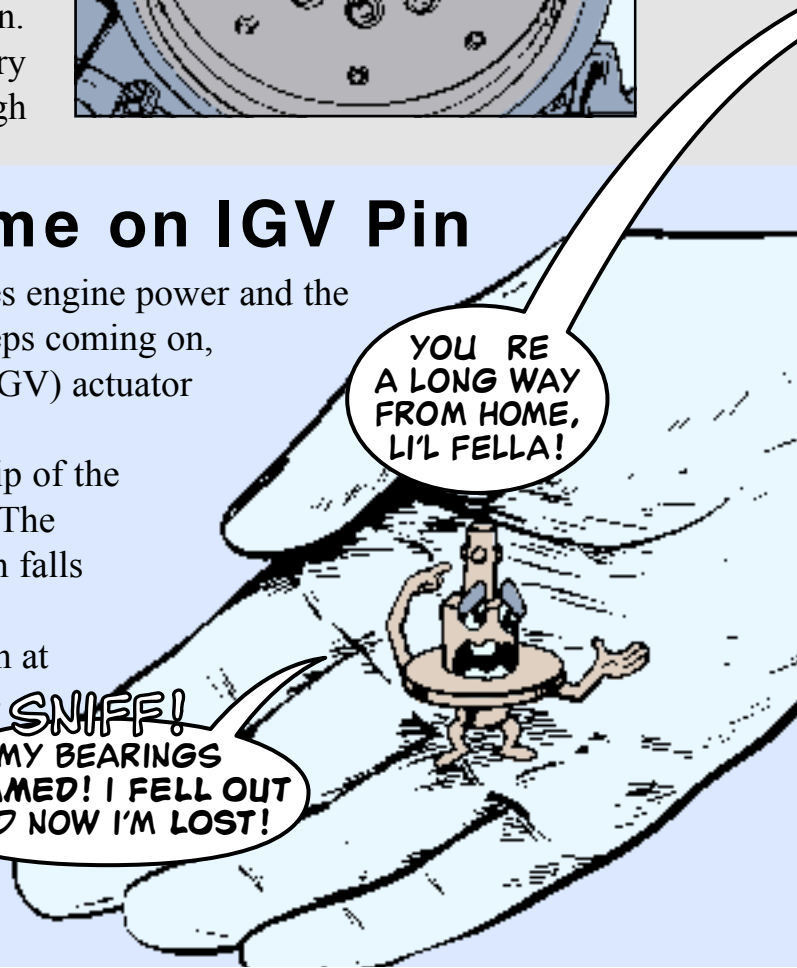
Drivers, if your M1-series tank loses engine power and the FUEL CONTROL FAULTY light keeps coming on, look for a missing inlet guide vane (IGV) actuator pin.

The spring-loaded bearings at the tip of the pin get gummed up with oil and dirt. The bearings lose their tension and the pin falls out.

Have your mechanic check each pin at every semiannual service. If the bearings don't spring back when they are pressed and released, replace the pin with NSN 5315-01-205-8647.

SNIFF!
MY BEARINGS
JAMMED! I FELL OUT
AND NOW I'M LOST!

YOU'RE
A LONG WAY
FROM HOME,
LI'L FELLA!



YOU'D BETTER DO WINDOWS...RIGHT!



Say you don't do windows? When it comes to the cab windshields on your MLRS, it's better not to do anything than to clean 'em the wrong way.

Cleaning the windshields with high-pressure water or steam is definitely the wrong way. The heat and high pressure loosen the adhesive that binds the glass layers together. The glass turns hazy or opaque, making it very hard for crewmen to see. If it gets bad enough, your vehicle is NMC.

Here's the right way to clean cab windshields:

1. Flush the outside window surface with low-pressure water. Wipe the inside surface with a wet sponge or soft, wet cloth.
2. Wipe both surfaces lightly with a sponge or soft cloth saturated with a solution of general purpose detergent, NSN 7930-00-880-4454, and water. Use 1/4 ounce of detergent per gallon of water.

Use sponge and soapy water only



Clean inside and outside of ballistic windows

Keep clothing buckles, buttons, and zippers away from the window surfaces.

3. Flush the outside surface again with clean water. Wipe the inner surface with a sponge or cloth and clean water until the detergent is removed.

4. Dry each surface by lightly wiping with a clean, dry cloth using straight strokes from the top to the bottom. That prevents streaking.

Looking for Leaks?

Drivers, nothing's more irritating than a coolant leak on your MLRS that you can't find. Unfortunately, that's what happens when the leak is coming from coolant hose, NSN 4720-01-109-2052.

Leaks from that hose drip straight down on the engine manifold. The intense heat from the manifold immediately evaporates the coolant. With the coolant gone, you can't find any trace of a leak.

To make matters worse, the hose may only leak when engine heat makes it expand. Once the engine cools down, the hose contracts and the leak often disappears.

Stop those leaks from happening. Eyeball the hose quarterly for cracks and feel for softness. If you find either, get your mechanic to replace the hose.

Check hose quarterly for cracks or softness



MLRS ...

Look for Loose Fins

OUCH!
MY FAN SHROUD
FINS WILL NEED SOME
PM AFTER THIS
BEATING!

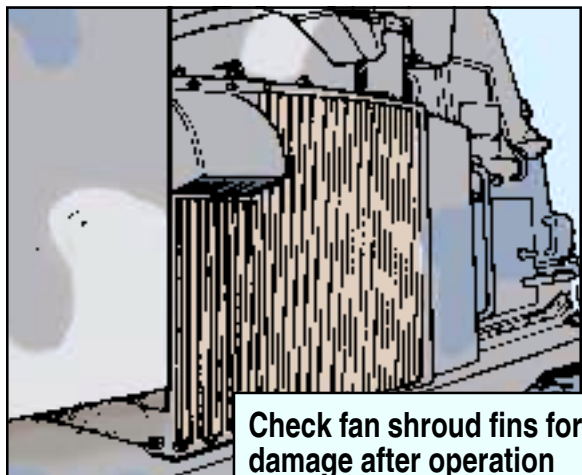
SCRAPE
SCRATCH
SCREEK

Drivers, your MLRS takes a beating from tree limbs and branches when you're in the field.

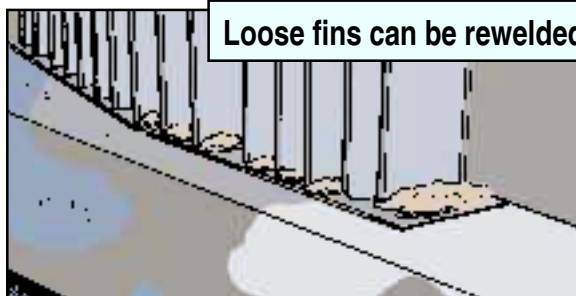
That's why you should always give the fan shroud fins a good once-over

when you get back to the motor pool. Fins that are knocked loose in the field will turn up missing if you don't spot and report problems.

Eyeball the fins closely. Try to move 'em. If there's any give at all, report it. DS can weld loose fins and save your unit the money it takes for fabrication or replacement.



Check fan shroud fins for damage after operation

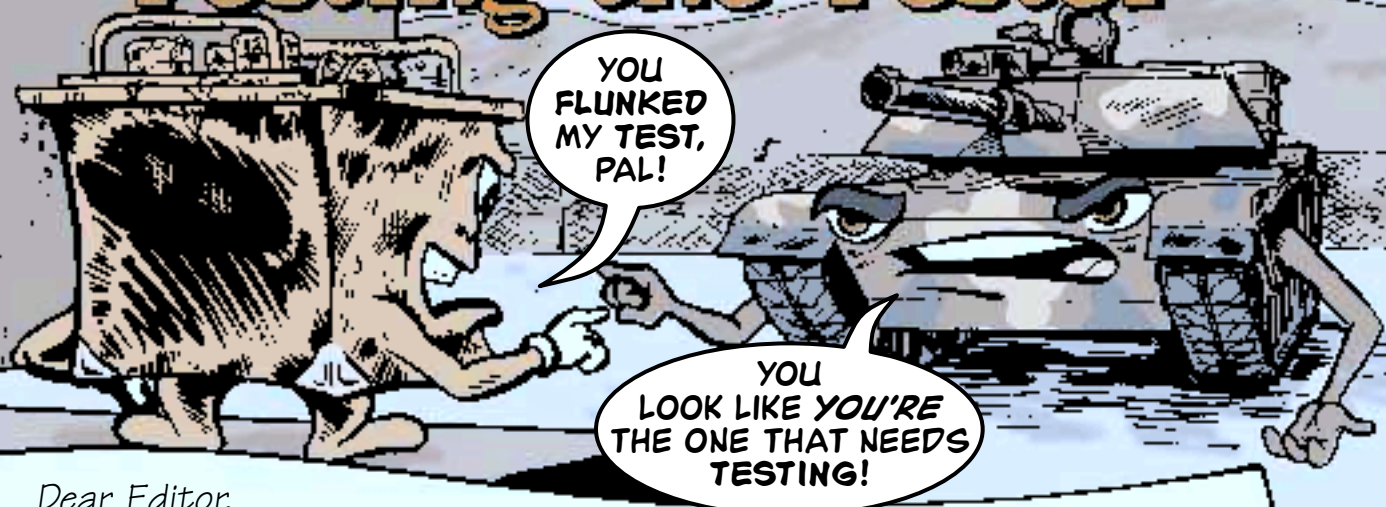


Loose fins can be rewelded

MLRS Track and Cab Nuts

The MLRS headshed is switching to self-locking nuts with nonmetallic insets on the cab hinge and track pads. They hold better than the ones in TM 9-1450-646-24P. Use NSN 5310-00-068-8067 for Item 8 of Fig 1 and Item 78 of Fig 171. Use NSN 5310-00-175-2710 for Item 5 in Fig 9, Item 4 in Fig 13 and Items 13, 15, and 21 in KITS.

Testing the Tester



Dear Editor,

The STE-M1/FVS test set can save you lots of time—if it's working right. If it's not, it can waste your time with needless troubleshooting.

I've come up with a few ways to keep the tester testing accurately. The most important is to clean its cable connectors monthly with isopropyl alcohol and an acid swab brush. If the connectors are dirty, you get faults where no faults exist.

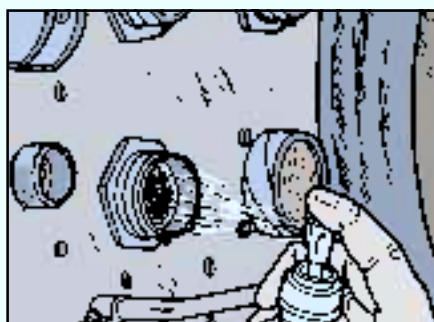
If you do get a fault during a test, don't start troubleshooting right away. First, run the test again. If you get the same fault, check that the connectors on the vehicle's diagnostic panel and turret distribution box are clean. Clean them with isopropyl alcohol and an acid swab brush if necessary. Make sure the connectors are dry before you hook them back up.

Finally, ensure that all the STE-M1/FVS

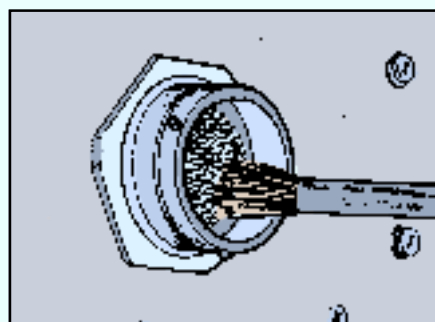
cables are screwed snugly into the vehicle connectors. A loose cable causes faults.

Then, rerun the test. Nine times out of 10 your vehicle will pass the test.

Gary Williams
29th Inf
Ft Benning, GA



Clean connectors with alcohol...



...and acid brush

FROM THE DESK OF THE Editor

We certainly can't find fault with your tests for the tester. Thanks.

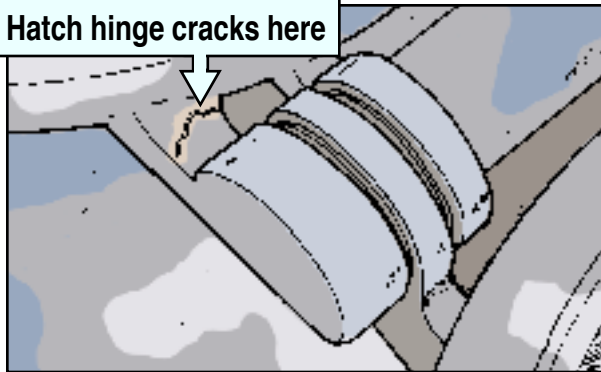
Bumper Bummer

Drivers, if you're having problems with cracked hatch hinges, the culprit might be a low hatch bumper.

If the bumper doesn't sit high enough, there's free play between the bumper and the driver's hatch—even when the hatch is locked open.

The hatch generates a lot of stress when it bounces up and down during operation. Pretty soon—*CRA-A-ACK!*—the hinge gives way.

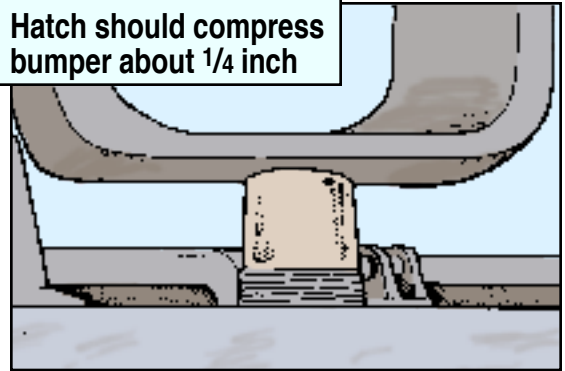
Hatch hinge cracks here



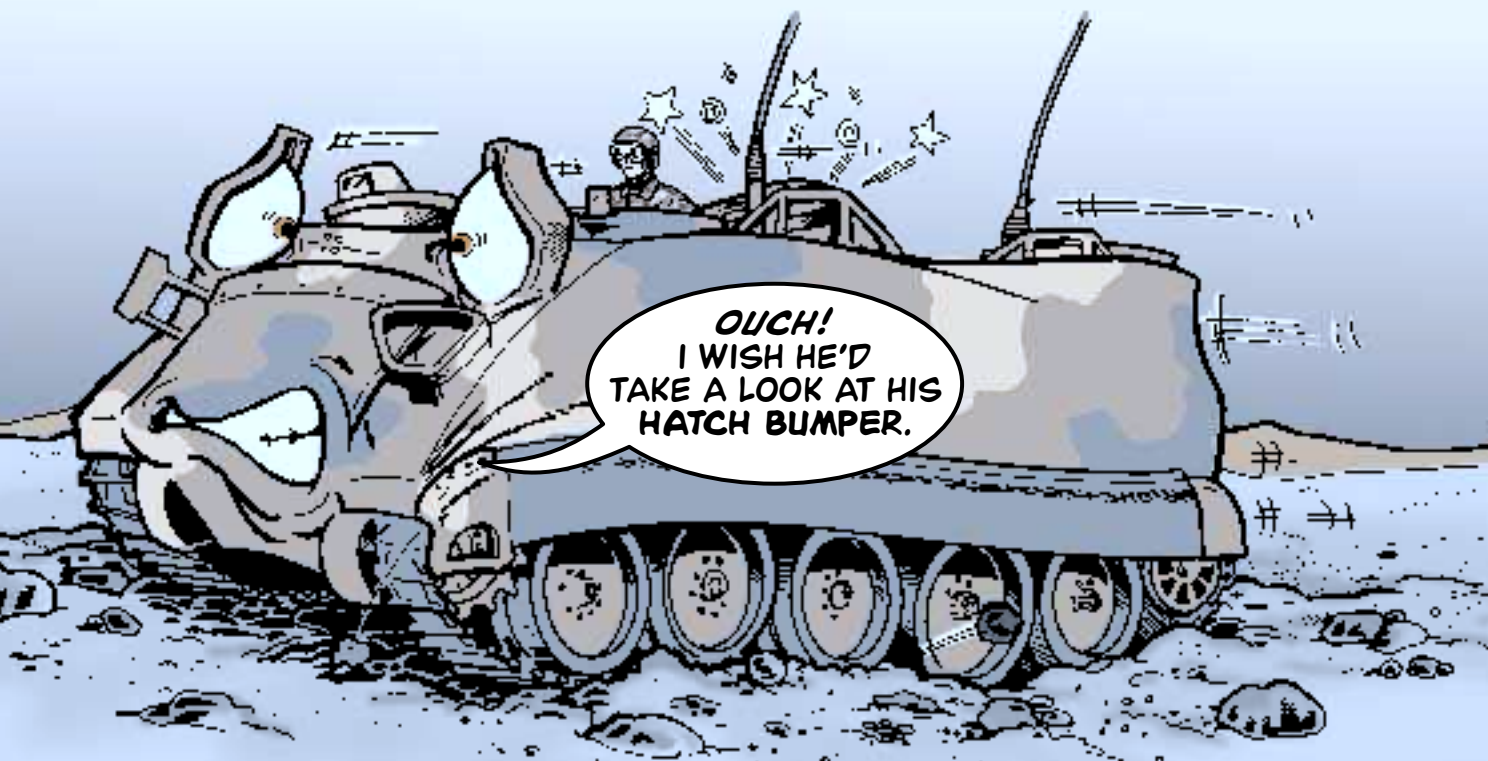
Check the hatch bumper right now. With the hatch open and the hold-down

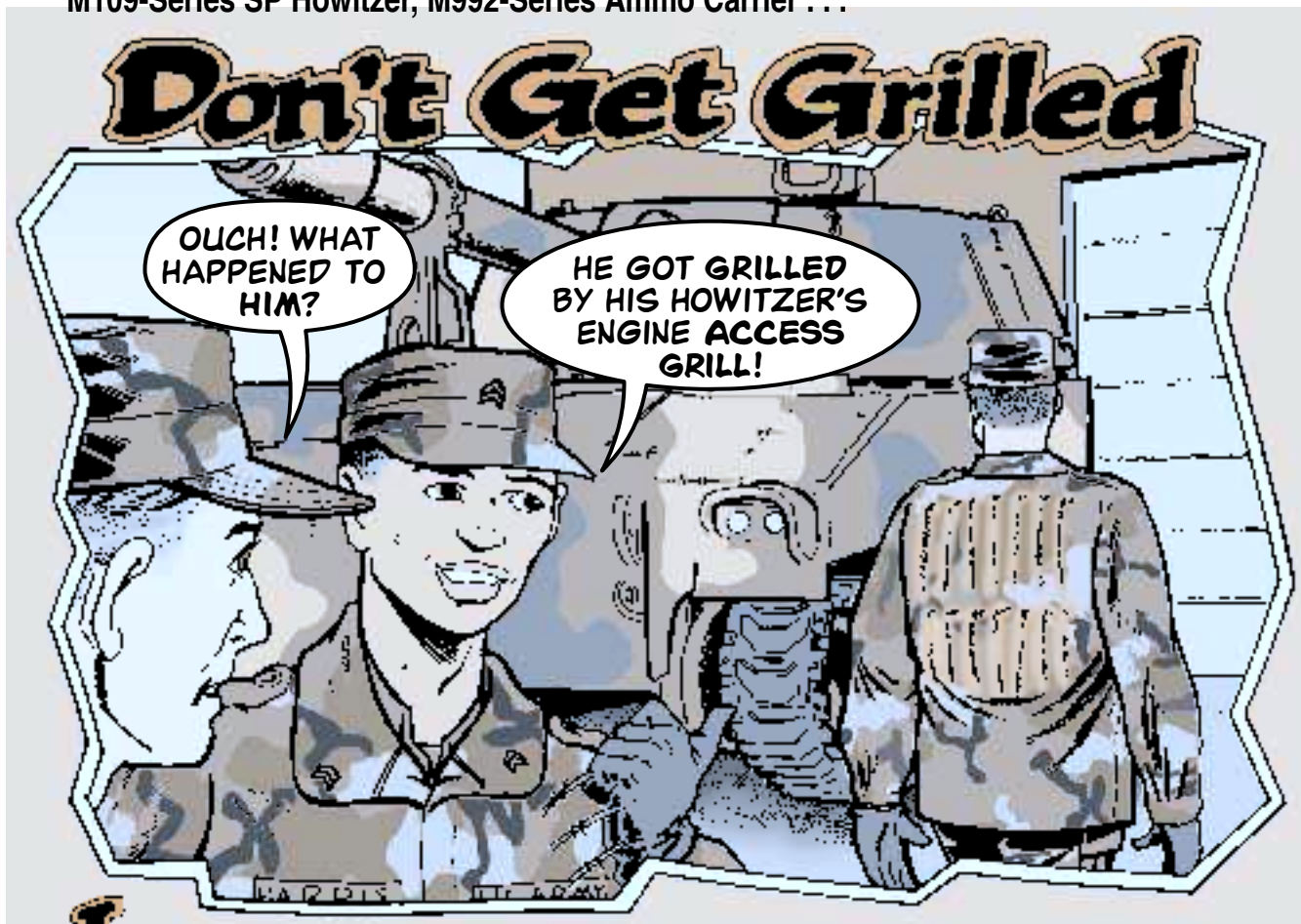
hook engaged, the hatch should compress the bumper about $\frac{1}{4}$ inch. If it doesn't, get your mechanic to raise the bumper using flat washers, NSN 5310-00-951-7209.

Hatch should compress bumper about $\frac{1}{4}$ inch



While you're at it, check the condition of the bumper. If the rubber is cracked, chipped or has lost its flexibility, get your mechanic to replace it. He'll use NSN 5340-00-209-9281 for the M577- and M1068-series vehicles. NSN 5340-00-679-9211 gets a bumper for all other M113-series vehicles.





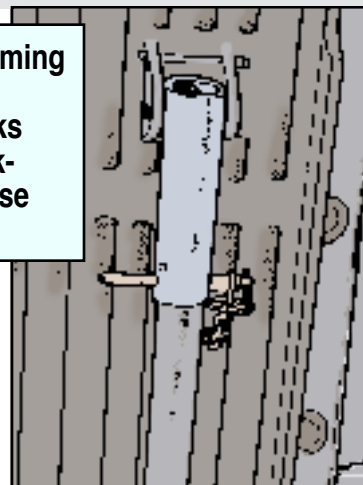
It's easy to close the engine access grille on your M109-series SP howitzer and M992-series ammo carrier by letting it fall back in place, but it's also costly.

Dropping the grille breaks the grille support's quick-release pin, especially if the pin hasn't been stowed properly. Then the support can't hold up the grille.

Leaning the grille back against the turret is a bad idea, too. You don't want to be working there if the grille comes crashing down!

Instead, order a new quick-release pin, NSN 5315-00-419-0758, to fix the support. Then, remember to slowly lower the grille in place.

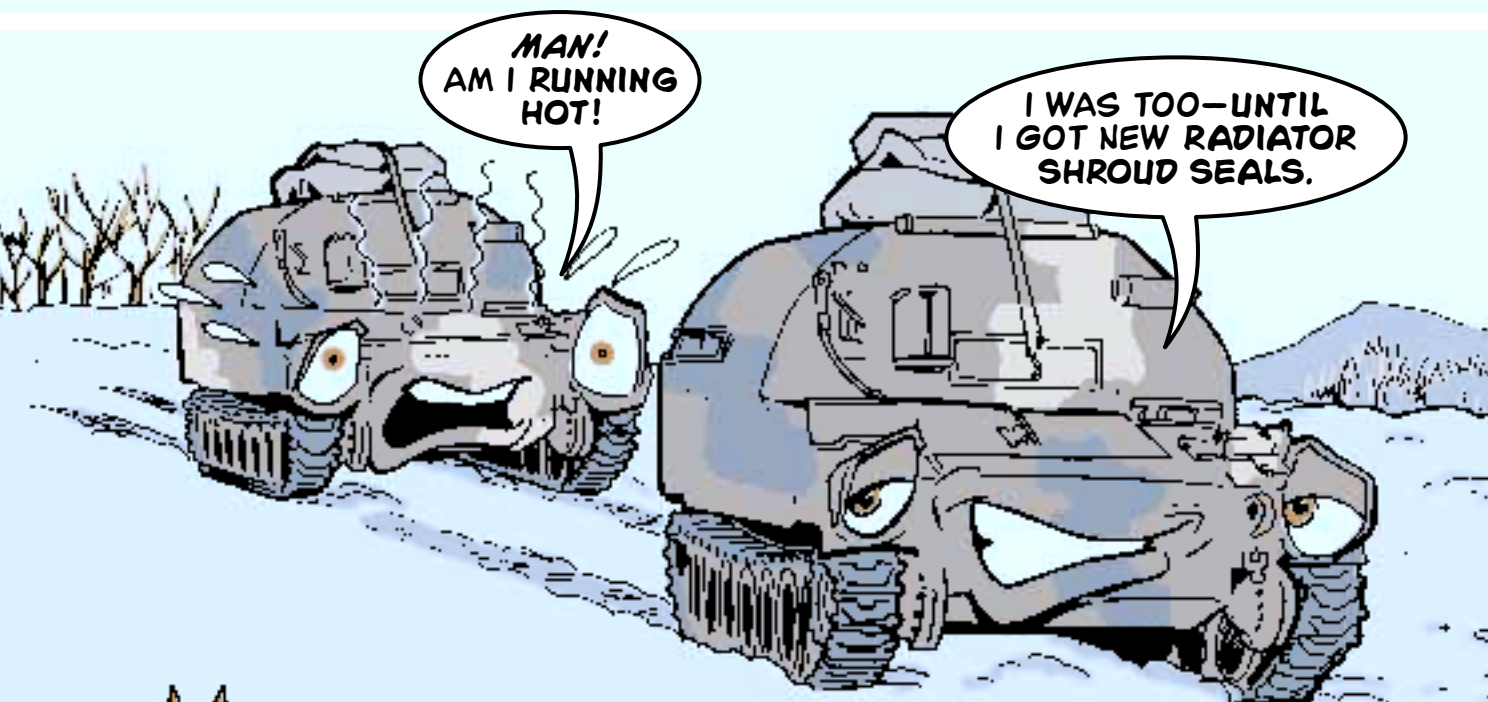
Slamming grille breaks quick-release pin



M109-, M992-Series Starter

NSN 2920-01-069-6997 gets the starter for your self-propelled howitzers and ammo carriers. The starter, NSN 2920-00-304-3493, shown in the parts manuals for these vehicles is no longer available.

Keep the Air Flowing

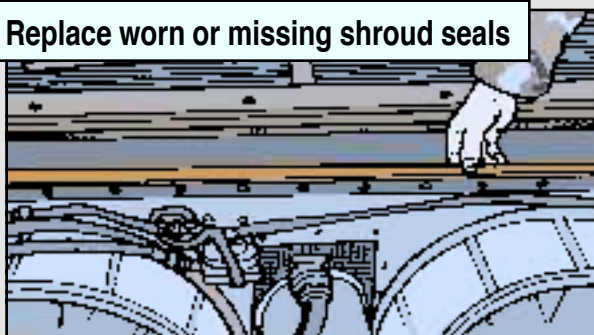


Mechanics, if you've been getting complaints of a hot-running engine in an M109-series howitzer or M992-series ammo carrier, check the radiator shroud seals.

The seals form an air barrier between the radiator and fan tower. That barrier increases air flow through the radiator to keep the engine cool. If seals are missing, torn, squashed or mangled, air escapes around the sides of the radiator. Engine temperature goes up.

Eyeball the shroud seals next time the pack's out. If the seals are missing or torn, order new ones. Check the -24P manual for the correct seals on your vehicle.

Replace worn or missing shroud seals



SUSV Fire Extinguisher

Get the hand-held CO₂ fire extinguisher and bracket for the small unit support vehicle with NSN 4210-01-388-7854. It's a replacement for the halon extinguisher shown as Item 11 on Page B-4 of TM 9-2350-285-10. The new extinguisher alone is NSN 4210-01-391-0784.

Head's

Up!

Mechanics, you've probably heard more than once, "Always use the hardware called for in the TM. Don't substitute!" The machine thread plug, NSN 5365-01-344-6040, on the stuffing box of your M119A1 howitzer is a great example of why this is so important.



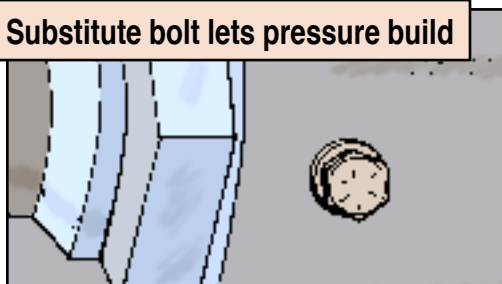
The plug has holes to vent excess pressure from the grease used in the

Plug has drilled vent holes



recuperator. If you substitute a standard bolt, there's no venting. Pressure builds until that bolt becomes a miniature rocket just waiting to blast off.

Substitute bolt lets pressure build



The next time you remove the bolt during services—*WHOOM!* You better hope you're not in the way.

Again, use only the hardware your TM calls for. No substitutes!



A Dragon that can't see is a Dragon that can't hit a target. That's why it's critical you protect the Dragon's eyes: its sights.

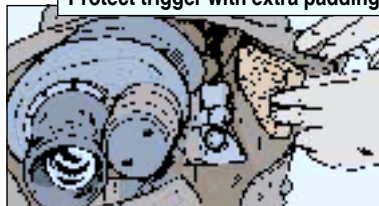
Most sights are blinded by carrying bags that have lost their padding. Without padding, one good bump can crack either sight's trigger. Check your unit's bags for padding. Support can replace both the bags' cushion cover and collar.

Even with the padding, it's a good idea to add extra cushioning with sponges or foam rubber, particularly around the trigger.

Protect the night sight eyeguard when you pack the tracker by screwing it in as far as possible. Otherwise, the carrying bag's insert rubs it off.

Watch your hands when you handle the sights. Lift the night sight out of its bag straight and slow. If you jerk it out, you crack the trigger. As soon as the sight's out of the bag, take hold of the carrying

Protect trigger with extra padding



Screw in eyepiece as far as possible to protect eyeguard



handle and use **only** the carrying handle to hold it.

Never use the shocks as hand holds. They rip right off. Grip the bodies of both sights to pull them out of their bags. Put both hands in front of the sights to slide them back on the round's rails.

Same thing goes for the eyeguards. They're only glued on. If you pull on them or use them as focus knobs, they come off. Without eyeguards, the sights give you a black eye.

Hands off shocks



Grip sight in front to slide it into position



All Seats Not Alike

Dear Editor,

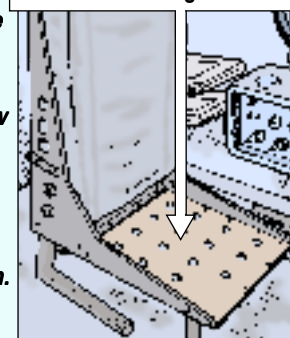
In PS 544, you told Avenger folks to step on the left side of the seat when they climb in the turret to avoid putting a foot through the seat's aluminum bottom.

That's good advice...if your Avengers still have aluminum seats. But many Avengers now have seats with fiberglass bottoms. With those seats, you should step directly in the seat's center. Fiberglass seats won't cave in from your weight. Stepping on the side of the seat quickly wears out the \$300 seat cushion.

So before deciding where to step, find out which seat your Avenger has.

**SPC Benjamin Radcliffe
3/4 ADA
Ft Bragg, NC**

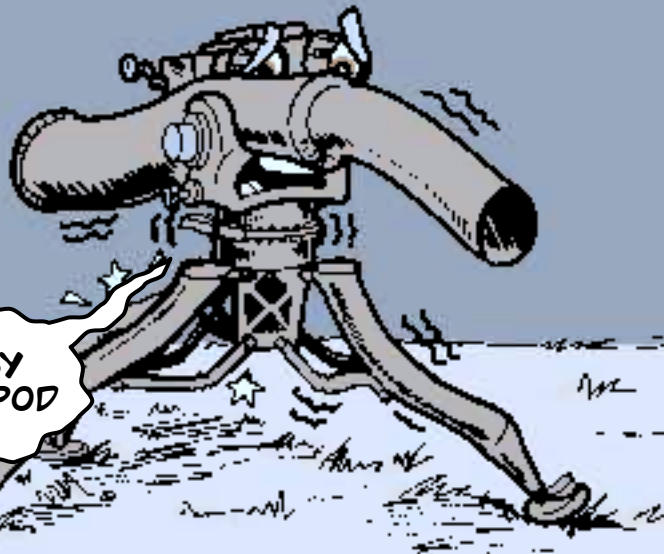
Check which seat you have—aluminum or fiberglass



FROM THE DESK OF THE Editor
*Thanks for pointing out seat differences.
It's a step in the right direction.*

Tripping Up Tripod Troubles

I'M FEELING
A LITTLE TIPSY
'CAUSE MY TRIPOD
NEEDS PM.



The tripod is what supports your TOW. If the tripod's shaky, your accuracy will be too. Here are a few ways you can support the tripod.

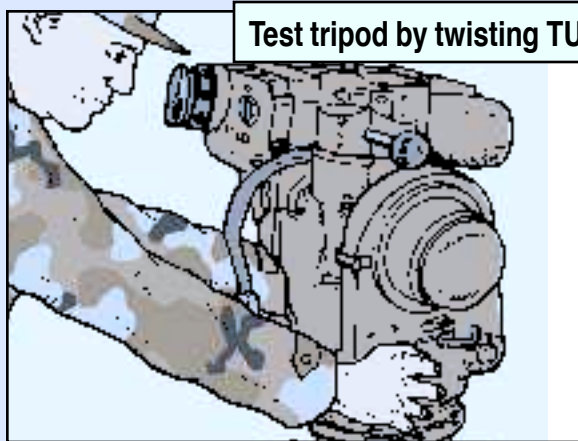
The tripod's most critical part is the locking clamp. If it works loose, as it often does during firing, the traversing unit (TU) won't be locked on tight and you'll have trouble tracking a target.

After you install the TU and lock down the clamp, try to twist the TU back and forth. If there is any movement, your repairman should tighten the clamp with

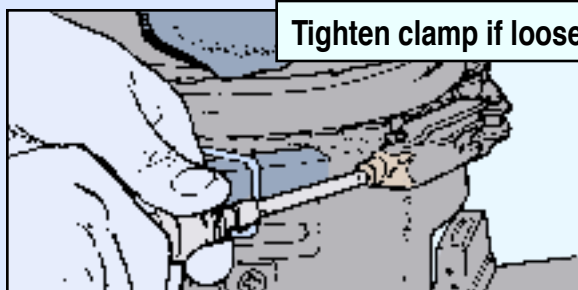
a $\frac{3}{16}$ -in hex wrench. If you would rather do it yourself, get a cheap hex wrench with NSN 5120-00-240-5300.

Turn the TU again. If there's still play, the clamp's shot. Get a different tripod.

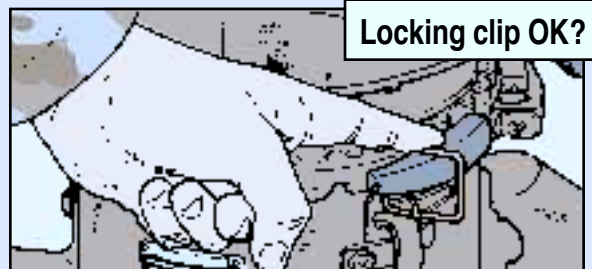
Also make sure the locking clip for the clamp works. If it can't do the job, the clamp can unlock and the TU takes a fall.



Test tripod by twisting TU



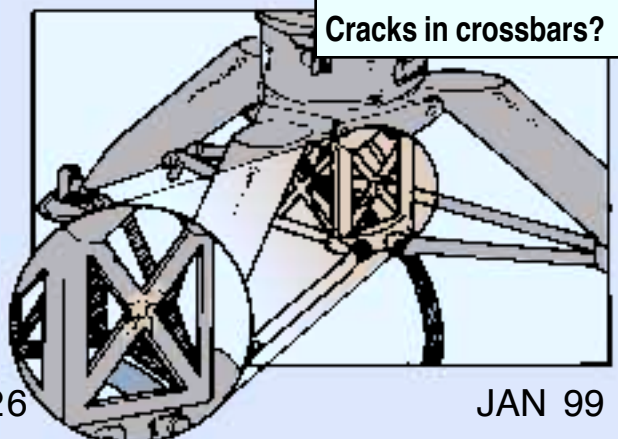
Tighten clamp if loose



Locking clip OK?

Help the tripod last by not riding around with the TU mounted. That loosens the clamp and eventually ruins it.

Eyeball the tripod crossbars on all four sides for cracks. If you spot any, it's time for a new tripod.



Cracks in crossbars?

Naked Tripods

Dear Half-Mast,

Many of our machine gun tripods are stripped down to bare metal and are rusting. Some units paint their tripods to prevent corrosion. Does this help?

1LT L.B.

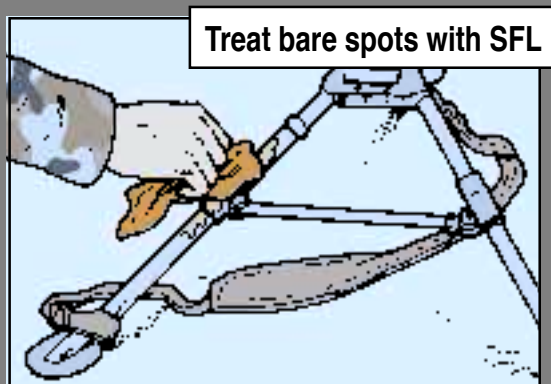
Dear Lieutenant L.B.,

Paint is not the answer. It will not stick to the smooth metal of the tripod. Whenever bare spots appear on a tripod, you should immediately treat them with solid film lubricant (SFL), NSN 9150-00-754-0064. That's the best way to beat corrosion on the tripod and the machine gun itself.

If you're part of a rapid deployment or divisional combat unit, you can touch up no more than one-third of the tripod with SFL. If more than one-third of the finish is gone, you should turn in the tripod. All other units can touch up the entire tripod.

Clean off any corrosion before applying SFL.

Half-Mast



M2 Machine Gun . . .

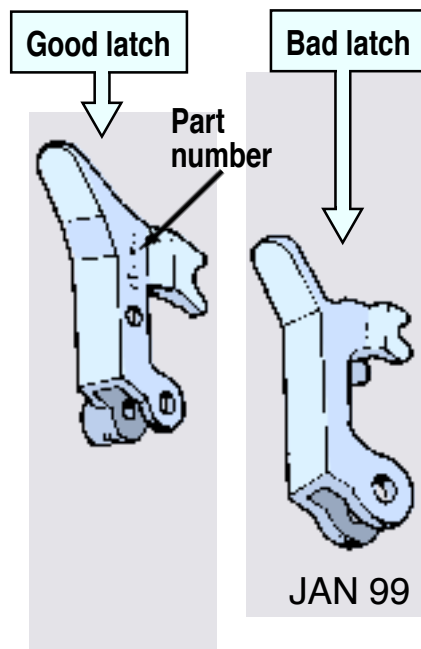
Bad Latches

Bad M2 machine gun back plate locking latches are still out there.

The bad latches bend and warp and let the back plate slip off. If that happens, your M2 could come apart during firing. That's why you armorers need to check your M2s right now for bad latches.

Bad latches are rounded on the corners. Good latches are square-cornered, have more metal on the bottom, and have the part number stamped on them.

If you find a bad latch, get support to replace it. M2s with the old latches are deadlined until they get a new latch.



Be Extra Safe

Sometimes SAFE isn't safe enough...like when you're removing a stuck or ruptured round from your M60. Even with the gun set on SAFE, the bolt could slip off the sear and the round could go off.

To remove a stuck round, TM 9-1005-224-10 says to pull the charging handle all the way to the rear and put your M60 on SAFE before you take off the barrel.

But if SAFE doesn't hold the sear and bolt in place, that stuck round could go off and jam the bolt against the sear.

The solution is to have a buddy hold the charging handle to the rear while you take off the barrel. Then there's no chance the bolt can move. Once a barrel is removed, insert a cleaning rod in the muzzle and tap out the case or cartridge.

Hold cocking handle to rear even with safety set

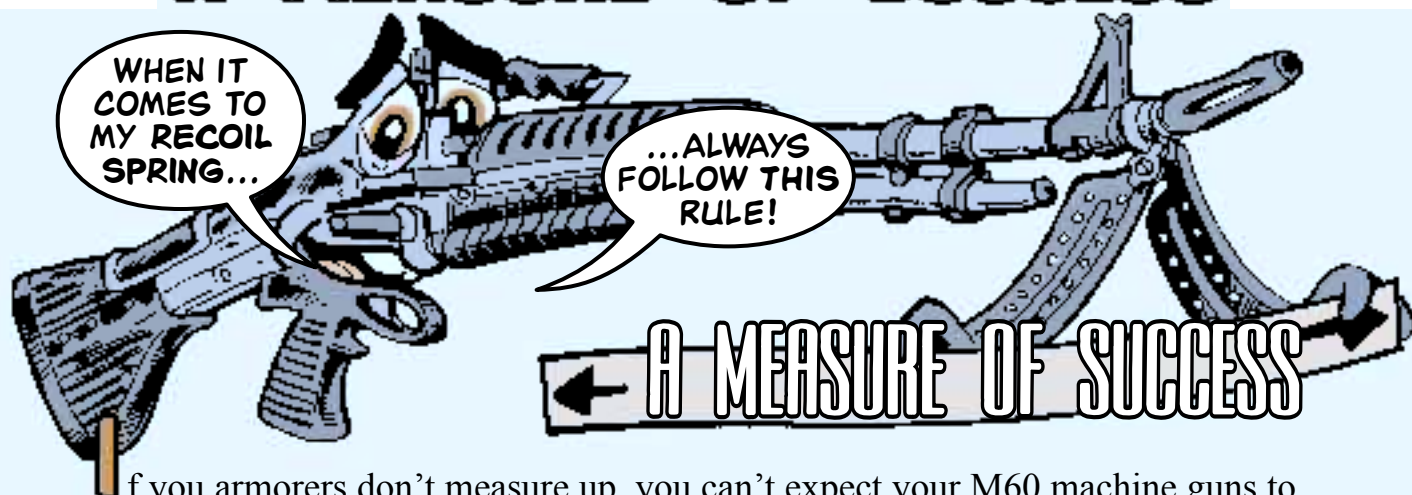


I'VE GOT
THE GUN SET ON
SAFE AND I'M HOLDING
THE BOLT BACK SO IT'S
DOUBLE SAFE!

GOOD! I'LL
REMOVE THE
BARREL AND CLEAR
THAT STUCK
ROUND.



A MEASURE OF SUCCESS



If you armorers don't measure up, you can't expect your M60 machine guns to fire successfully.

Firing compresses the recoil spring. If the spring shortens to less than $23\frac{1}{4}$ inches, bad things happen—poor recoil, double feeds, jamming.

After every trip to the range, get out your ruler and measure the recoil springs. Replace any that are too short.

Replace springs that measure less than $23\frac{1}{4}$ inches



Remember, too, that two different guide rods and recoil springs are in the system and they can't be mixed. The old spring is double-strand, while the new spring is single-strand. The old guide rod is thin, while the new rod is thicker.

If you use the old guide rod with the new spring, the spring will be loose and it will develop flat spots. Then you get jamming.

If you force the new guide rod into the old spring, you'll damage the spring.

If the rod and spring don't fit together easily—or snugly—don't use them. Order a new rod, NSN 1005-01-188-7877, or new spring, NSN 5360-01-203-2973.

Old double-strand spring uses thinner guide rod



New single-strand spring uses thicker guide rod

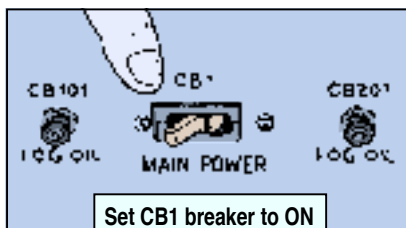


Using the Head Blank

The new engine head blank, NSN 4910-01-449-5335, can't help you troubleshoot the igniter if your repairmen don't know how to use it. Here's the scoop:

Before starting, remember that this is a two-man job, so get help. Never test for spark without the engine head or blank installed. They prevent flashback.

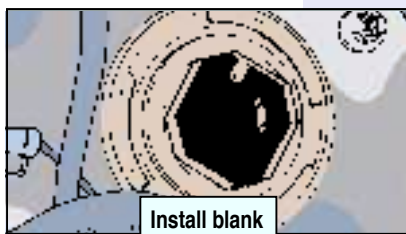
1. Set the circuit breaker CB1 and the power switch to ON. (M157A2: Set CB1 to ON.)



2. Turn the fuel switch on the control panel to OFF and purge any remaining air from air compressor. (M157A2: Turn ball valve to OFF.)

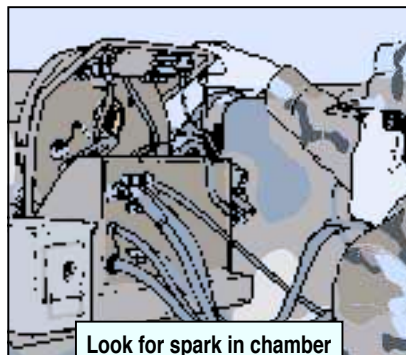
3. Disconnect the air supply line.

4. Remove the engine head and replace it with the blank.



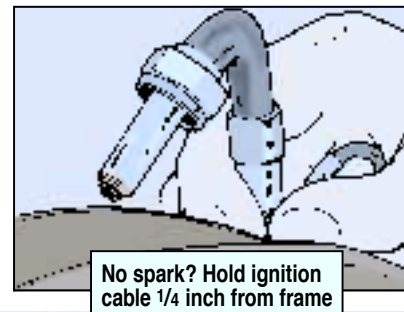
5. Hold the engine switch in START—but no longer than

15 seconds—and check the igniter's spark in the combustion chamber.

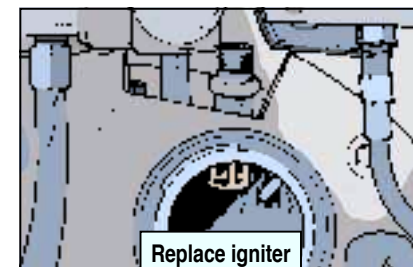


6. If there's a spark, set all switches to OFF, reinstall the head and continue troubleshooting for adequate fuel/air.

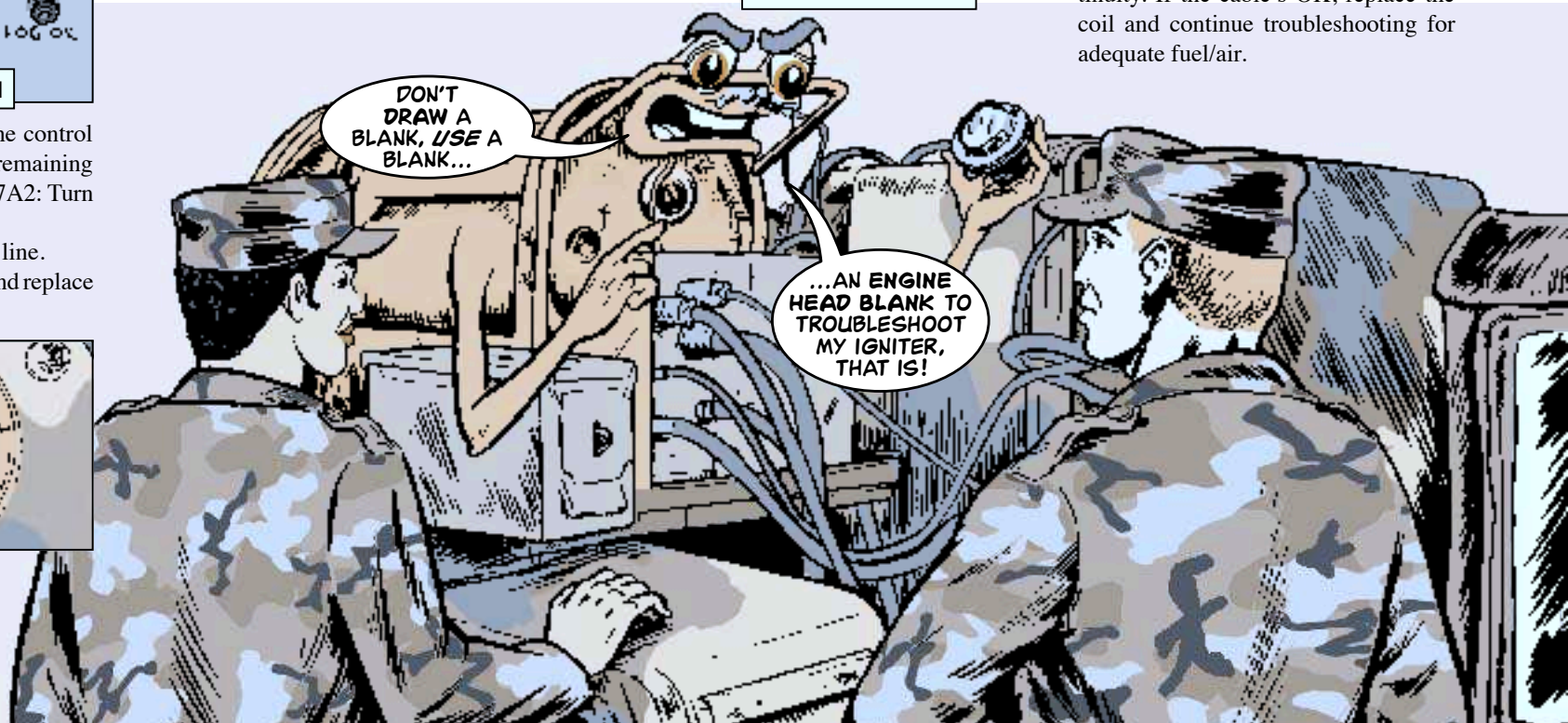
7. If there is no spark, set all switches to OFF and disconnect the ignition cable from the igniter. Set the power switch and CB1 to ON. (M157A2: Set CB1 to ON.) Hold the end of the ignition cable 1/4 inch from the metal frame. Hold the engine switch to START.



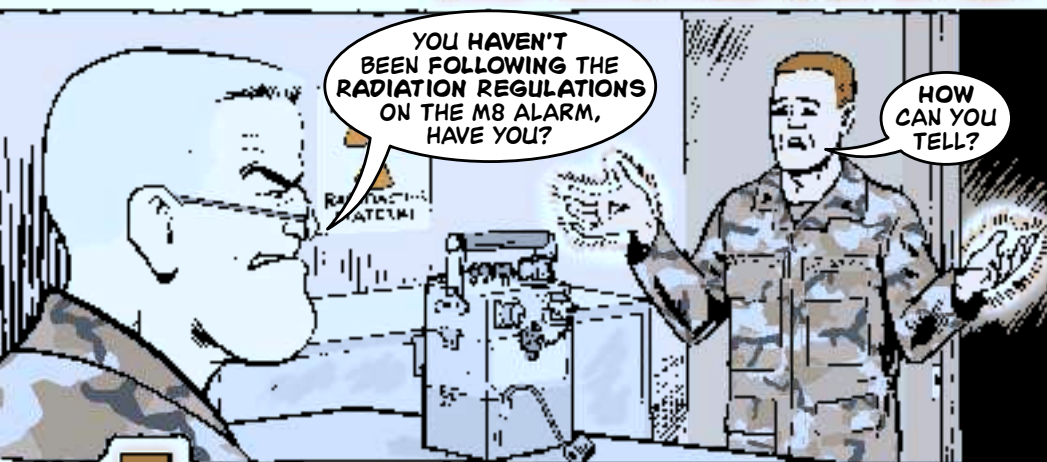
8. If there is a spark, set all switches and CB1 to OFF, replace the igniter, and check for spark in the combustion chamber.



9. If there is still no spark, set all switches and circuit breaker CB1 to OFF, and check the ignition cable continuity. If the cable's OK, replace the coil and continue troubleshooting for adequate fuel/air.



RADIATION ALARMS



The M43A1 detector for the M8A1 alarm has a radioactive source that requires special storage and treatment by NBC NCOs.

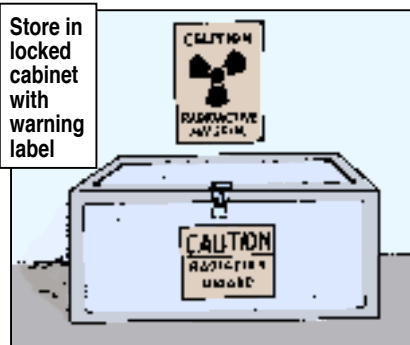
Regulations require you to store M43A1s in a locked room or caged area with a radioactive caution sticker posted on the door. The best place to store M43A1s is in a locked metal cabinet with a caution sign on the front. There is no NSN for the sticker, but your local safety office, radiation pro-

tection officer (RPO), or Environmental Protection Agency office can usually get you some.

One thing you don't want to store in that cabinet with your M43A1 detectors is radiacmeters. The radiation from the M43A1s affects the radiacmeter readings.

Because of the radioactive source, the M43A1 must be wipe-tested by support for leaks every 12 months. If it's overdue, the M43A1's NMC and you could be written up. Check the label on the detector cell to see when it was last tested. If it's overdue, get it tested ASAP. For more details, see TACOM-ACALA safety-of-use message 98-02. It's on the Internet at

<http://aeps.ria.army.mil>



PS 554

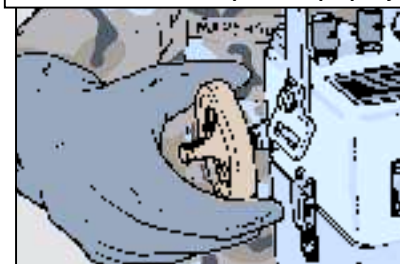
40

Check label for last wipe test



If you operate the M8A1 indoors or in a vehicle, you must use an outlet filter to trap any radioactive particles. Replace the filter if it becomes clogged or damaged. When you're done with a filter, you must handle it with disposable gloves. Then put the gloves and filter in a plastic bag, which goes into a metal container. Dispose of the

Outlet filter must be disposed of properly



M41 PATS ...

Help for PATS

NBC NCOs, you no longer need to send your M41 protection assessment test set (PATS) back to the manufacturer for calibration or repair. The Army has taken over those jobs.

You can either turn in your PATS to your local TMDE group for shipment, or ship it directly to:

US Army TMDE Activity (USATA)
ATTN: AMSAM-TMD-SS
Bldg 5435, Fowler Rd
Redstone Arsenal, AL 35898

Pack PATS in a cardboard box for shipment. Include the PATS case, all

PS 554

container through your local RPO. Details are in Para 4-13 of TM 3-6665-312-12&P.

You can make installing and removing the outlet filter easier with a snap-on adapter, NSN 4730-01-350-1584. Once the adapter's on, you won't have to take off the air outlet nut to put on the filter.

Remember to report all incidents involving lost or damaged devices containing radioactive material to your local RPO or safety officer immediately. For details, see TACOM-ACALA ground precautionary message (GPM) 98-01. You can find the message on the TACOM-ACALA Internet site or get a copy from your TACOM-ACALA logistics assistance representative.

the accessories (except the battery and alcohol bottle), a point of contact at your unit (name and phone number), and your unit ID code (UIC).

If you do ship PATS yourself, notify your local TMDE group so they can enter your PATS in their database for tracking purposes.

Normally, USATA will need less than a week to calibrate a PATS.

For more information, contact USATA's Greg Boggs at (256) 955-8138, DSN 645-8138, or e-mail him at dboggs@tmdeccstmp.redstone.army.mil

41

JAN 99

Don't Sweat the Humidity



I CAN'T
FIND A REPLACEMENT
HUMIDITY INDICATOR
ELEMENT.

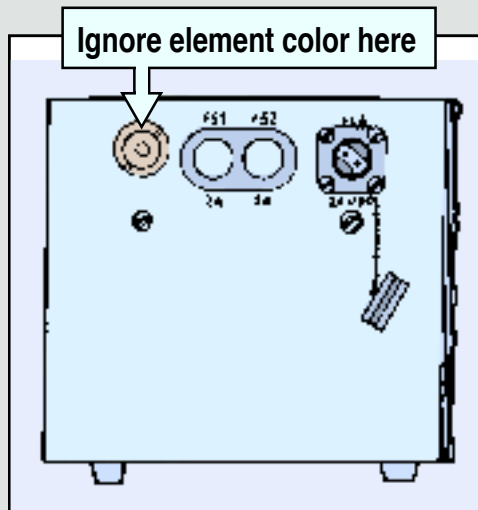
YOU DON'T
NEED TO BE BLUE
ABOUT A PINK
REPLACEMENT.

Dear Half-Mast,

I have an AN/PDR-75 radiac set. I have been trying with no success to get a replacement humidity indicator element. Mine has turned from blue to pink and the TM says to turn in a pink indicator element for replacement.

But there seems to be no NSN for the element! And no one I turn to knows how to get a new one. So, I'm turning to you. What should I do?

SGT E. A. L.



Dear Sergeant E. A. L.,

*One good turn deserves another—forget about replacing that indicator element! TM 11-6665-236-12 once said to turn in a pink element to general support for replacement, but no more. Page 2-2 of the newest version of the TM—Jun 95—says that no element changes are required. In fact, **new** radiac sets don't have an indicator element at all!*

Moisture inside the meter is not a problem.

Half-Mast

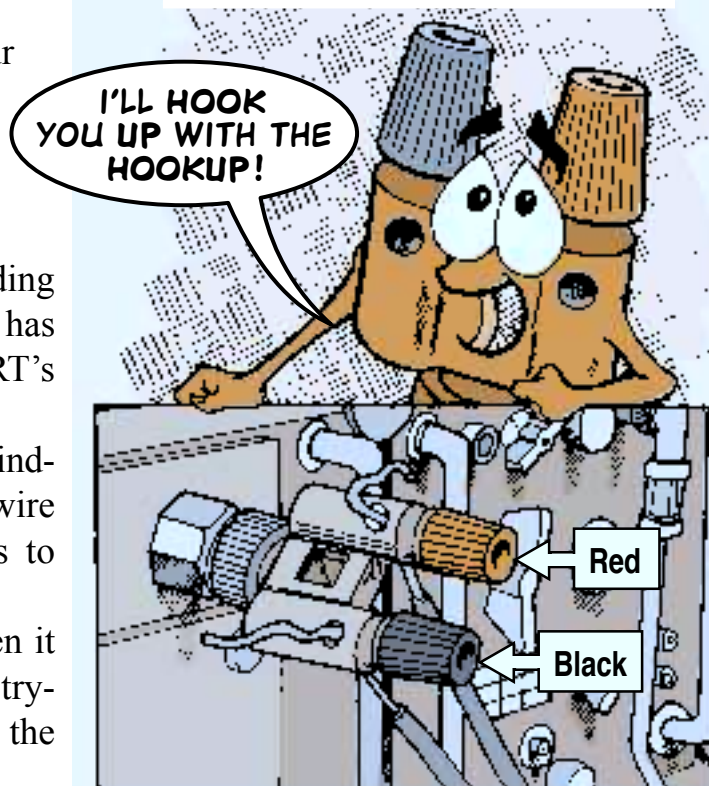
Antenna Hookup Adapter

Make the hookup between your field expedient antenna and your AN/VRC-12 receiver-transmitter easy with the UG-1441 adapter, NSN 5935-00-410-1399.

One end of the adapter has binding posts for field wire. The other end has a BNC connector that fits the RT's ANT receptacle.

The wire from the adapter's red binding post goes to the antenna. The wire from the black binding post goes to the counterpoise (lower wire).

To keep the adapter handy, fasten it to the RT's handle. This fix beats trying to feed field wire directly into the set's receptacle.



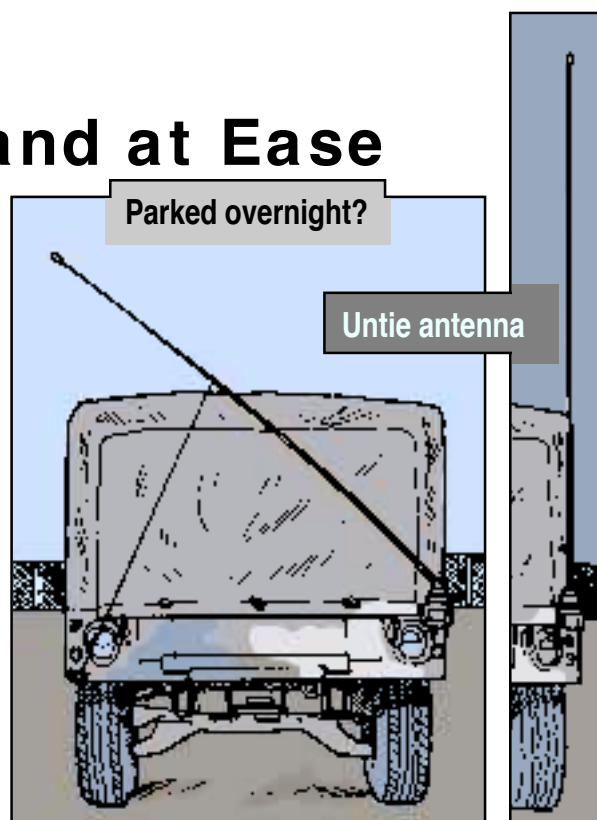
Vehicular Antennas . . .

Let 'em Stand at Ease

When your vehicle's parked for an extended length of time, like overnight, take the antenna out of the tie-down clip and let it stand straight up.

This relieves the tension on the base spring. Over time, tension weakens the spring.

This also keeps the base spring coils together, which helps keep out moisture and debris. A tied-down antenna has its spring coils spread open, making it easier for dirt and moisture to get inside and damage the base and the RF cable.



IT'S THIN SKINNED

HERE'S A
RIDDLE FOR
YOU COMMO
TYPES.

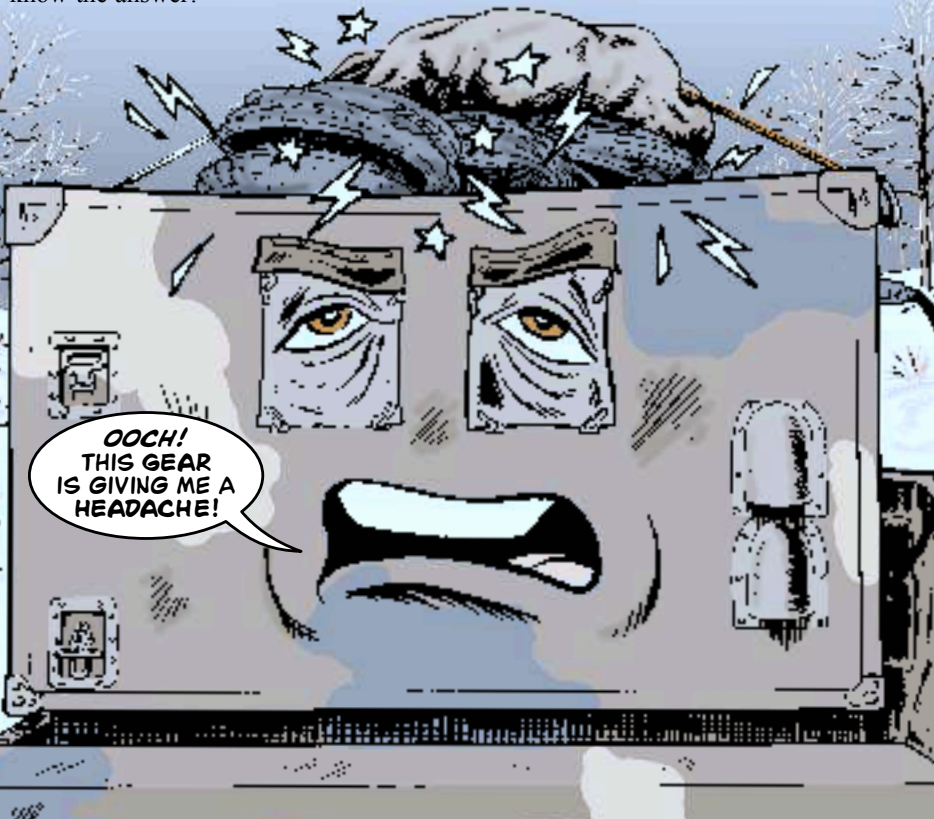
What has two thin layers of
metal covering conductive foam
and tears quite easily?

NEED
ANOTHER
CLUE? READ
ON!

It hates having heavy or sharp objects tossed on it and stored on it.

If you guessed commo shelter, you guessed right.

But judging by the looks of many commo shelter roofs, most of you **didn't** know the answer!



The roof of your commo shelter may look tempting as a place to store equipment, or to move your gear to the field, but that ruins the shelter's roof. Things like ground rods or concertina wire cut and tear the shelter roof's skin.

The only load-bearing surfaces on these shelters are at the corners—not on the roof itself!

Make sure you look at the roof if you've been hauling cargo on top of your shelter. If you see punctures or broken seams, get them fixed immediately. Shelter leaks cause electrical shorts.

Find out what you can fix, and what tools and materials you need to do the work, in TB 43-0124, Maintenance and Repair Procedures for Shelters. It tells you everything you need to know to complete repairs at the unit level.

If you have no choice but to load gear on your shelter's roof, put pallets or plywood under the equipment to protect the skin. Then, remember that putting items on top of the shelter changes the center of gravity of that vehicle. It can be a safety hazard.

For more information, see TM 10-5411-205-13 for the S-250 shelter and TM 10-5411-207-14 for the S-280 shelter.

Duster Kits and Refills

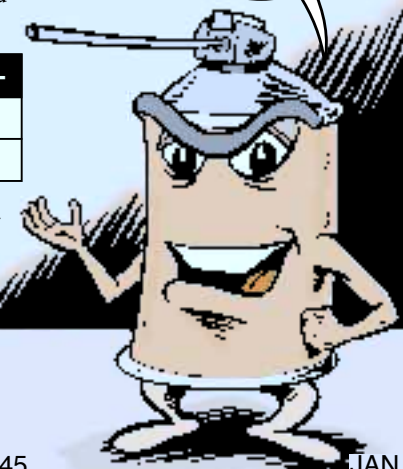
Duster kits clean electronic equipment the safe way—with compressed air. Use them to dust off printed circuit boards, computers, front panels and switches.

Here are the NSNs for duster kits and 10-oz refill cans of compressed air:

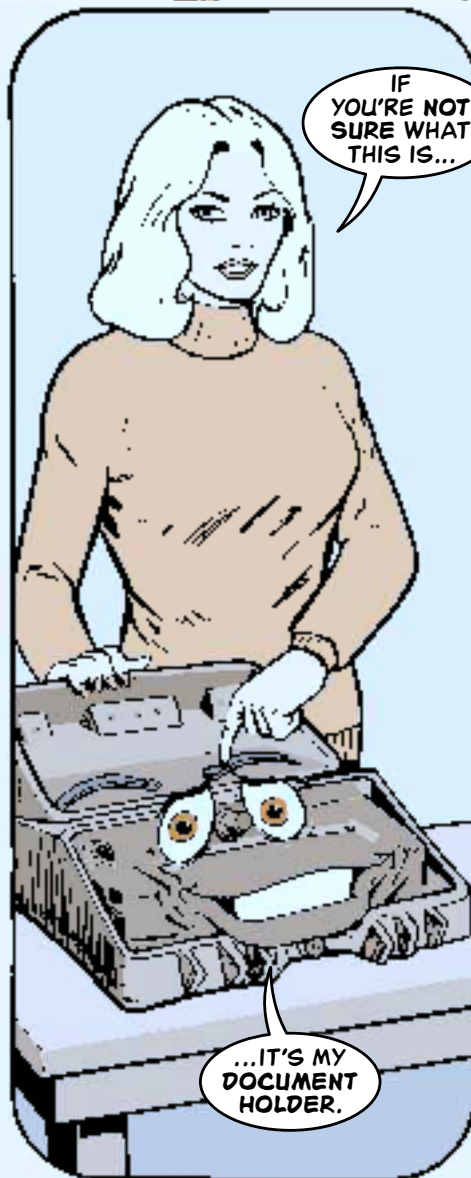
Kit NSN 6830-01-	Refill NSN 6830-01-
406-9819	406-9820 (12)
381-2675 (12 kits)	388-6924 (12)

Never mix and match refills and kits. The chemicals they use to propel the compressed air are different and not compatible.

THESE
NSNs WILL
BLOW YOU
AWAY!



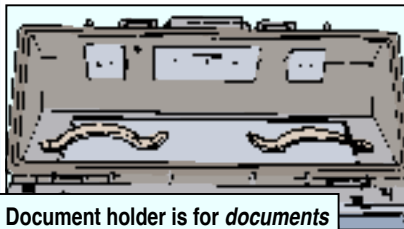
What It Is and What It Isn't



What it is, is a document holder.

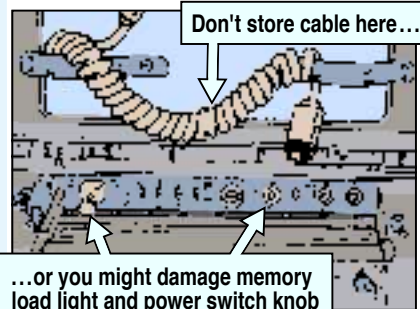
Say you're operating your AN/UXC-7 lightweight digital facsimile in the field and a strong wind whips up. You don't want those important faxes to be blown away faster than Dorothy was blown out of Kansas, do you?

Of course not. That's why the folks who made your fax put a document holder inside your front cover. With those important papers stuck under the holder, you can spit in the wind's eye. (Well, maybe you'd better not do that.)



What it isn't, is a place to store your power cable or TM.

A power cable stored in the cover bashes against the memory load light on one side and the power switch knob on the other.



A TM stored in the cover puts pressure on the shaft of the power switch. It won't be long until the knob on the switch snaps off.

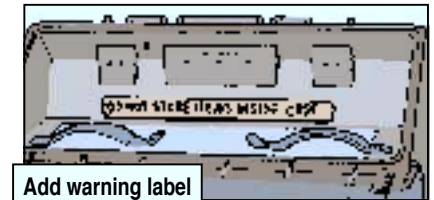
So how do you make sure the document holder gets used for what it is and not for what it isn't?

Label it.

The perfect place for a label is inside the lid between the instructions and the latches.

Make the words on the label as forceful as necessary to solve the problem.

"Do Not Store Items Inside Case" might do.



The label can be as simple and temporary as masking tape and marking pen; or, you can use a label maker and do a more permanent job.

RL-207 Series Reels . . .

No Bite for Belt

Dear Half-Mast,

Sometimes we get a lower V-belt for our RL-207A/G that has teeth. Sometimes we get one that doesn't. Are both OK to use?

SGT H. L. P.

Dear Sergeant H. L. P.,

No, the only lower V-belt to use is the smooth one, NSN 3030-01-158-7527. If you're getting a belt with teeth, it's the wrong belt. Check the NSN you're ordering. If it's good, it's a supply error.



Whatever the problem, don't use that belt! It may fit, but it does not allow complete control of belt slippage. The belt with teeth will bite—grab—when you don't want it to. It could cause injury or equipment damage.

Make sure you have the right upper V-belt, too. It's NSN 3030-01-290-1371.

Half-Mast

Assorted Screws, Washers, Etc.

Here are a bunch of available kits and assortments for screws, washers, metric fasteners and other common use items:

Screw Assortments (steel)

NSN 5305-	Description	Pieces
01-211-6770	Screw, hex head, grade 8 with nuts. 1/4 inch to 1/2" inch diameter, zinc-plated, coarse and fine threads	1,470
01-195-5479	Screw, hex head, grade 5 with nuts. 1/4 inch to 1/2 inch diameter, zinc-plated, coarse and fine threads	1,470
01-250-0594	Screw, hex head, grade 5 with nuts and flat and lock washers. 1/4 inch to 3/4 inch diameter, zinc-plated, coarse threads	9,520
01-277-6289	Screw, cap, socket head, grade 8, 1/4 inch, 5/16 inch and 3/8 inch diameter, coarse threads	96
01-309-4954	Screw, cap, socket head, grade 8, 1/4 inch, 5/16 inch and 3/8 inch diameter, fine threads	96
00-206-4993	Screw, machine, zinc-plated with nuts and washers. 2-56, 3-48, 4-36, 6-32, 8-32, 10-24, 10-32, 12-24 and 1/4-20. Round, flat and fillister slotted heads	3,000
01-195-1552	Screw, tapping (sheet metal), case hardened. #6, #8, #10 and #12. Pan, flat and oval phillips heads	1,500
00-194-6862	Screw, tapping (sheet metal), nickel-plated, #4, #6, #8, #10, #12 and #14. Flat, binding and oval slotted heads	495
01-185-8786	Setscrew, hex socket, alloy steel, cup point. #10 to 1/2 inch diameter. 590 screws in 11 sizes with 115 hex keys in seven sizes	705
01-186-7208	Setscrew, hex socket, alloy steel, cup point, #6 to 3/8 inch diameter screws in various lengths, coarse and fine threads	200

Screw Assortments

NSN 5305-01-	Description	Pieces
416-8563	Screws, self-tapping non-machine thread, 18-8 stainless steel, pan head, cross-recess drive. 100 ea: #6 x 3/8 inch, 1/2 inch, 3/4 inch and 1 inch; #8 x 1/2 inch, 3/4 inch and 1 inch; #10 x 1/2 inch and 3/4 inch. 50 ea: #8 x 1 1/2 inch; #10 x 1 inch, 1 1/4 inch and 1 1/2 inch; #12 x 3/4 inch, 1 inch and 1 1/2 inch	1,250
416-8576	Setscrews, 18-8 stainless steel, cup point, hex socket drive. 50 ea: 4-40 x 1/8 inch, 3/16 inch and 1/4 inch; 6-32 x 1/8 inch, 3/16 inch, 1/4 inch, 5/16 inch and 3/8 inch; 8-32 x 1/8 inch, 3/16 inch, 1/4 inch, 5/16 inch and 3/8 inch; 10-32 x 3/16 inch, 1/4 inch, 5/16 inch, 3/8 inch and 1/2 inch	900
416-8580	Screws, machine, pan head, slotted, 18-8 stainless steel. 50 ea: 4-40 x 1/4 inch, 3/8 inch and 1/2 inch; 6-32 x 1/4 inch, 3/8 inch, 1/2 inch, 3/4 inch and 1 inch; 8-32 x 1/4 inch, 3/8 inch, 1/2 inch, 3/4 inch and 1 inch; 10-24 x 1/2 inch, 3/4 inch and 1 inch; 10-32 x 1/4 inch, 3/8 inch, 1/2 inch, 3/4 inch and 1 inch; 1/4-20 x 1/2 inch, 3/4 inch and 1 inch	1,200

Metric Fastener Assortments

NSN	Description	Pieces
5305-01-230-1530	Screws, hex head, nuts and split lock washers, class 8.8 alloy steel, standard pitch threads, color: green. Six ea of various size screws: 4mm to 10mm diameter. Lengths: 16mm to 50mm. 12 ea of various size nuts: 4mm to 10mm. 12 ea lock washers for 4mm through 10mm screws. 108 screws, 72 nuts and 72 washers	252
5305-01-194-0522	Screws, hex head, class 8.8 alloy steel, standard pitch threads, color: green. 10 ea of various sizes: 4mm to 12mm diameter. Lengths: 16mm to 120mm	71
5310-01-193-9534	Nuts, hex, and flat washers. Nuts: class 8.8 alloy steel, standard pitch threads, color: green. 25 of each diameter nut and washer: 4mm to 16mm diameters. 200 nuts and 200 washers	400

Washer Assortments

NSN	Description	Pieces
5310-01-239-3414	Washers, flat, SAE steel for 1/4 inch to 1 inch diameter screws/bolts	240

Miscellaneous Assortments

NSN	Description	Pieces
5307-01-210-7914	Studs, plain, steel, grade 8, 5/16 inch, 3/8 inch and 7/16 inch diameters, coarse and fine threads	54
5307-01-178-5952	Studs, plain and stepped, steel, grade 5, 1/4 inch to 9/16 inch diameters, coarse and fine threads	240
5305-01-186-7068	Screws, sheet metal, with flat and lock washers, #8 through 3/8 inch diameters. 158 screws, 100 lock washers, 43 flat washers	301
5305-01-255-6350	Screws, brake bleeder, for most makes and models, foreign and domestic. 11 different sizes	96
5306-01-331-7523	Rod, continuous thread, steel, bright-plated, chromate-coated, 12 inch lengths, 3/16 inch to 1/2 inch diameters	45

Remember, though, when replacing hardware on equipment, always use the fasteners called for in your TMs.



Tools...

Flag It!

Dear Editor,

We had trouble in our motor pool with drivers backing into the rollaway toolboxes in the bays. That damaged the boxes and scattered the tools on the floor.

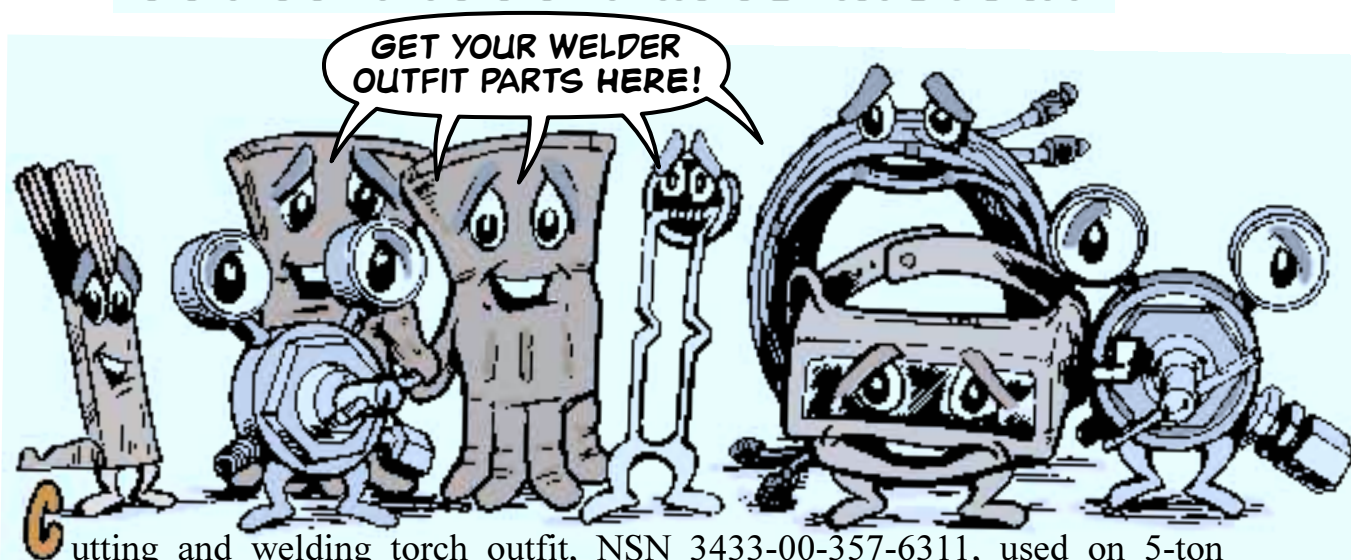
We made the boxes more visible with a flag that sticks up four feet above the box. Construct the flag with any kind of lightweight rod and a brightly-colored rag or streamer and fasten it to the back of the toolbox. Drivers can now easily spot the flag before they back over the toolbox.

SFC Ramos Archuleta
977th MP Co
Ft Riley, KS

FROM THE DESK OF THE Editor

That's an idea we can salute.
Drivers should, of course, always use
ground guides when backing.

Order Piece Parts Instead



Cutting and welding torch outfit, NSN 3433-00-357-6311, used on 5-ton wreckers, has an acquisition advice code (AAC) of “Y”, meaning there are none available in the supply system.

Until stock is available, you can put together a kit from the following parts:

Item	NSN
Cutting and welding tips	3433-00-294-6743
Cleaner set (12 cleaners, 0.021–0.067-in diameter, w/o handle, w/case)	3439-00-383-3634
Cleaner set (8 cleaners, 0.076–0.116-in diameter, w/handle, w/case)	3439-00-403-0970
Goggles	4240-00-816-3819
Hose set, nonmetallic	4720-00-081-5643
Rubber hose, duplex, 25-ft	4720-00-834-2560
Rubber hose, duplex, 12.5-ft	4720-01-043-4099

Item	NSN
Acetylene regulator valve	4820-00-551-1094
Oxygen regulator valve	4820-00-641-3519
Oxygen check valve	4820-00-828-7190
Acetylene check valve	4820-00-828-7192
Welder's hammer/brush	5120-00-240-3096
Friction igniter	5120-00-965-0326
Flint tip igniter	5120-00-965-0603
Tool roll	5140-00-356-8471
Tool box	5140-00-473-6260
Welder's gloves	8415-00-268-7859

SC3433-90-CL-N01 covers the torch outfit.

Drill Chuck Keys

BEFORE YOU TURN ON YOUR PORTABLE ELECTRIC DRILL, MAKE SURE YOU REMOVE THE CHUCK KEY.

LOOK OUT TIM!

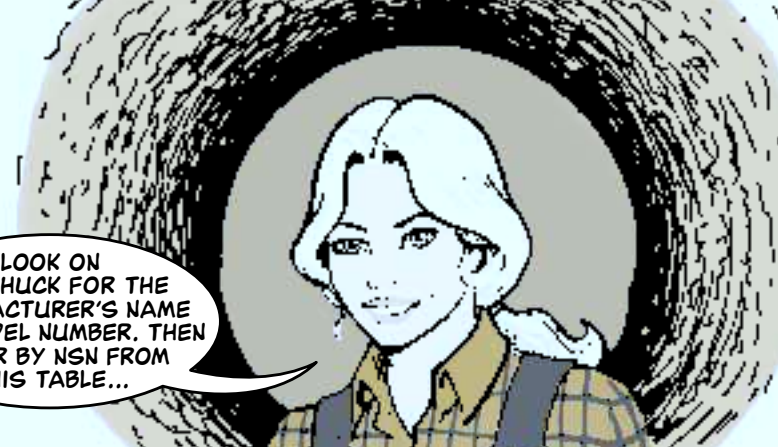
OTHERWISE THE KEY COULD FLY OUT OF THE CHUCK AND STRIKE YOUR FACE.

BETTER YET, USE ONLY SAFETY SELF-EJECTING DRILL CHUCK KEYS. SELF-EJECTING KEYS ARE SPRING LOADED AND WON'T STAY IN THE CHUCK ONCE IT'S TIGHTENED.



PS 554

LOOK ON THE CHUCK FOR THE MANUFACTURER'S NAME AND MODEL NUMBER. THEN ORDER BY NSN FROM THIS TABLE...



CHUCK MANUFACTURER/ NUMBER	KEY#	NSN, SELF-EJECTING KEY 3460-01-018-
Jacobs 1A, 1B, 1BS, MC1, MC1AD, 1M, 1MB Supreme 1J, 1A, 1T1, S1A H1A, HM1A	SK1	4217
Jacobs 2A, 2B, MC5 Supreme 2A, 2B, 2TB, 2T2, H2A	SK2	4218
Jacobs 633C, 633D Supreme 6T33E	SK3C	4220
Jacobs 20N Supreme 26T5	SK5	4226
Jacobs 7, 7B, 7BA, 7-1A Supreme 4A, 4B, 4C, 4T1, 4T2	SK7	4221
Jacobs 30, 30A, 30B, 31B, 31BA, 8 1/2N, MC4 Supreme 7A, 7B, 7T1, 7T2, H13A, H13B, B14T33	SK30	4222
Jacobs 3333C Supreme 5T33C, 15T33C	SK32C	4224
Jacobs 72G, SM4G61, MC2, H1, H4, U4, MC1, MC51, DC1, DC4, MC1G61, MC1G41, U4G61, U4G41, U4G60 Supreme BM1A, B1A, B80A, BM80A	SKG	4227
Jacobs 74K, 76K, 77K, SM8, DC8, MC4K61, MC4K01, MC4K41, MC8K64, MC8K33, MC8K61, U8K61, U8K64, U8K33 Supreme B13A, BM13A, B14B, B14T33, B16A, B16B, B16T33	SKK	4228
Jacobs MC10R64, MC33R33, MC8K26	SKR	4229

PS 554

53

JAN 99

CHECK THOSE BURNERS



Some of your kitchen's M2 and M2A burners may have defective or missing parts.

Since you don't want to start your day with a fire or an explosion that can get you killed, here's how you and your repairman can make those burners safe to use.

Air Valve Assembly

If your burner has air valve assembly, NSN 7310-00-999-2508 (a one-part valve that's silver in color), replace it immediately with the two-part valve, NSN 7310-01-449-9955.

The two-part valve is silver on the fill end and brass on the base.

Replace one-piece air valve assembly...



...with two-piece valve

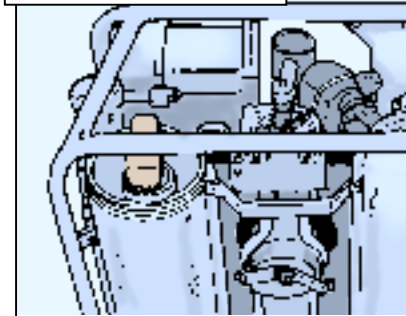
Filler Cap Gasket

If your burner has filler cap gasket, NSN 5330-01-278-4024 (it's a flat, round washer-type gasket made of a cork/rubber composite), it may leak.

Test it like this:

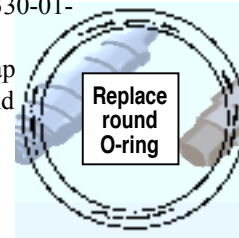
1. Stand the cooled-down burner on its end.
2. Tighten the filler cap.
3. Pressurize the tank with air to 25 psi, and put soapy water around the filler neck.

Tighten cap, check for leaks



4. Eyeball the cap. If soapy bubbles are escaping, replace the gasket. Use NSN 5330-01-362-3428.

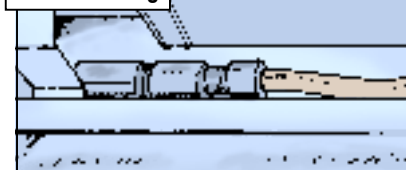
If the filler cap gasket is a round rubber O-ring, replace it with NSN 5330-01-362-3428.



Safety Valve Device

If your burner does not have the safety valve device assembly, NSN 7360-01-343-9014, don't use the burner until one can be installed. You

Look for tubing



if it is missing by looking for a length of copper tubing between the pressure gauge and the mixing chamber.

If the tubing's not there, there is no safety valve. Get one and install it as spelled out in Para 4-9.10 of TM 10-7360-204-13&P.

If you see the copper tubing, you still need to check out the safety device. First, check for damaged tubing. If tubing is damaged, replace it. Then test its operation, like so:

1. Drain the fuel tank.
2. Use an air compressor to pressurize the tank to 55-65 psi, where the safety valve should open.
3. If the safety valve is OK, it will open. Then the pressure will drop rapidly to 35-45 psi, where the safety valve should close. If it doesn't open or close like it should at these pressures, replace it.
4. Check the safety device for leaks with a solution of soapy water. Tighten any loose hardware.
5. Set the burner on its end and slowly turn the filler cap counterclockwise to release the air pressure.

Never release the air pressure near any heat source. Gas vapors will ignite. Always allow the burner to cool before releasing pressure. Use proper refill and lighting procedures as spelled out in TM 10-7360-204-13&P.

If your burner needs an air valve and gasket, you can get a kit, NSN 7310-01-456-0776, to update it. The kit contains an air valve assembly, gasket, and installation instructions.

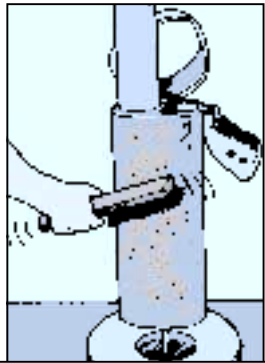
Immersion Heaters . . .

When you get ready to put your immersion heaters in storage, make sure they'll be ready to go when you haul them back out.

Rust is a heater's biggest enemy. But you can keep it at bay with just a little PM.

Here's how to rustproof heaters for storage:

- ① Wipe off any grease or moisture.
- ② Remove all rust, corrosion, or loose paint with a wire brush, scouring pad, or extra-fine sandpaper.



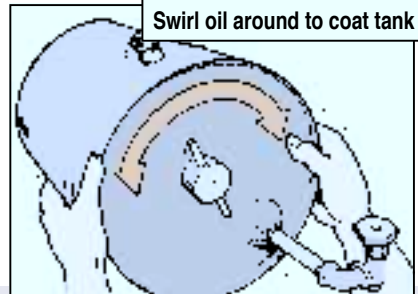
Remove rust before storage

Rust Is

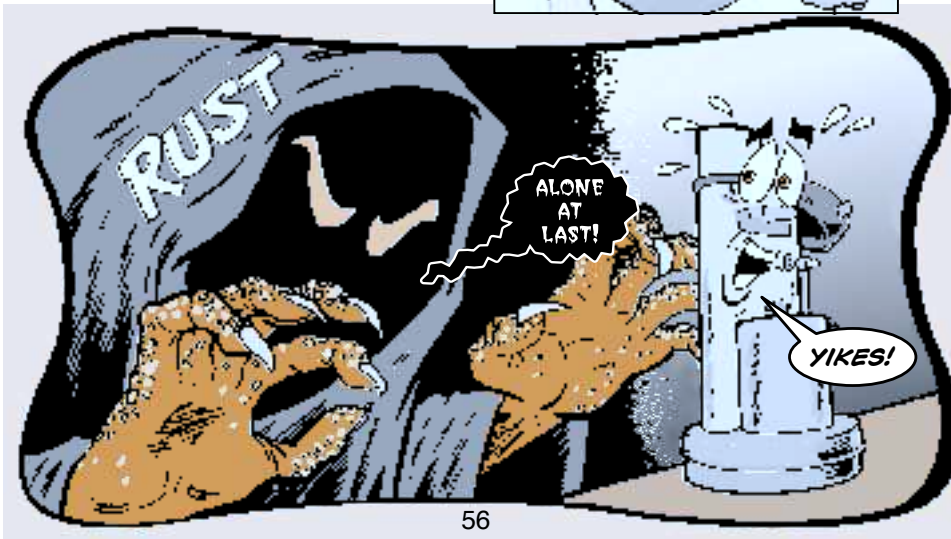
- ③ Add touch-up paint, NSN 8010-00-081-0809, to exposed areas. Paint only those parts that TM 10-4500-200-13 says it's OK to paint.

- ④ Clean unpainted parts, like the heater body and hanger screws, with solvent. After drying, add some corrosion preventive compound, NSN 8030-00-251-5048. Be sure to wash it off with lots of hot water before you use the heater again.

- ⑤ Coat the inside of the fuel tank with lubricating oil, NSN 9150-00-111-



Swirl oil around to coat tank



the Enemy

3199. Pour about 8 ounces of oil into the empty tank. Put the cap back on. Swish the oil around inside the tank to coat it evenly. Then drain the leftover oil.

Be sure you flush out the lube oil before you use the tank again. Use a little clean fuel to get it out. That keeps the tank from smoking.

- ⑥ Put a light coat of lubricating oil on the smokestack sections.

- ⑦ Wrap greaseproof barrier paper, NSN 8135-00-224-8885, around the burner. Now it's ready for a few weeks of storage. If it sits longer than that, it'd be a good idea to check on it every 90 days.

Water Cans . . .

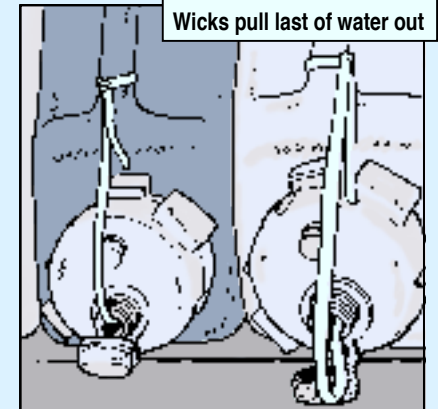
Wick-edly Dry

Dear Edit or,

When we come back from the field, we empty water cans as well as we can before storing them. We've worked out a wicking system to get the last of the moisture out of the cans as they sit in storage.

We tie cotton rags or fabric tape, NSN 8315-00-255-7662, to the can's handle and then run it into the can. The fabric acts as a wick and pulls the last of the water out of the can.

SGT Joseph Herbert
177 FA
Ft Sill, OK



Wicks pull last of water out

FROM THE DESK OF THE Editor

That's a CAN-DO attitude! A little water left sitting in a can could be a hiding place for contaminants.



LOGSA PHONE CHANGES

SOME OF THE PHONE NUMBERS FOR THE LOGISTICS SUPPORT ACTIVITY'S ASSET VISIBILITY CENTER—FORMERLY THE MAJOR ITEM CENTER—HAVE CHANGED. NOW WHEN YOU NEED INFORMATION, CALL...

Product	DSN
Army Central Service Point (ACSP)	897-2500/2491/2496/2498
AMDF Discrepancy Reporting (DIREP)	645-0600
Army Master Data File (AMDF)	645-0569
AMDF Freight Segment	645-0593
AMDF Packaging Segment	645-0593
AMDF Price Surcharge	645-0791
AMDF Statistics	645-9037
AMDF Extract Requests	645-8333
AMDF Interrogation and Retrieval System (AIRS)	645-0583
Army Total Asset Visibility	645-9777
Army War Reserves	645-9591
Army Cataloging Policy	645-0597
Asset Force Information (AFI)	897-2427/2425/2432
Automated Products Distribution	645-8334
Automatic Return Items List (ARIL)	645-0583

Product	DSN
Authorized Stockage List (ASL)	645-8334
Commodity Command Standard System (CCSS)	645-0597
Consumable Item Transfer (CIT)	645-0575
Continuing Balance System—Expanded (CBS-X)	897-2424/2426
CBS-X Reconciliation/Compatibility	897-2434/2435/2436
CBS-X Transaction Team	897-2445/2443/2440
DA Master Project Codes	897-2492
Defense Inactive Item Program (DIIP)	645-0585
Depot Workload Forecasting System	645-0595
Distribution Execution System (DES)	897-2444/2449/2451
End Item Code (EIC)	645-0782

Product	DSN
Federal Logistics (FED LOG) Data Distribution	645-0782
General Ledger	897-2486
Hazardous Materiels Data System (HMDS)	645-0593
Interchangeability & Substitutability (I&S)	645-0791
Logistics Army Authorization Document System	897-2502/2503/2504
Materiel Category Code (MATCAT)	645-0782
Procurement Workload Report	645-0585
Reduced Price Initiative	645-0791
Requisition Validation	897-2478/2479
Routing Identifier Codes (RIC)	897-2501
Sets, Kits and Outfits (SKO)	645-0616
Standard Army Retail Supply System (SARSS)	645-8334
SB 700-20	645-8335
Total Army Equipment Distribution Plan (TAEDP)	897-2494
Unique Item Tracking (UIT)	897-2506/2475/2460/2463
Wholesale Budget Preparation System	645-0595

The commercial area code and local prefix for DSN 645 extensions are (256) 955-. DSN 897 extensions are (256) 313-.

Or you can write to:

USAMC Logistics Support Activity
ATTN: AMXLS-M
Redstone Arsenal, AL 35898-7466

On-line Filing

Tou can file your taxes on-line, so why not file Quality Deficiency Reports on-line, too?

That's just what the folks at the Army Electronic Product Support at TACOM-ACALA have made possible.

You'll need Internet access and a World Wide Web browser, such as Netscape Navigator or Microsoft Internet Explorer.

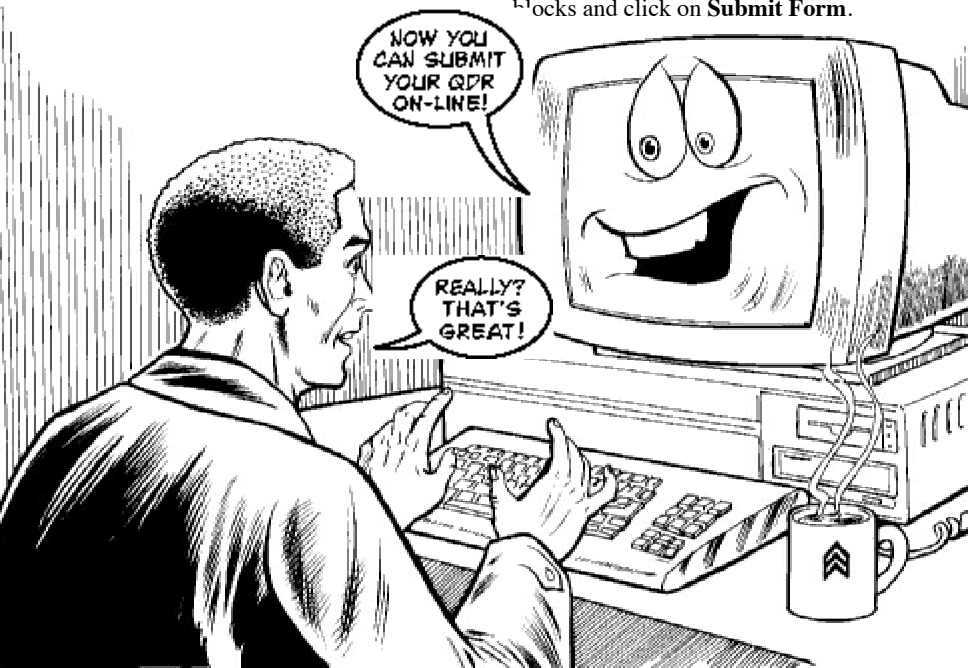
Point your browser to:

<http://aeps.ria.army.mil>

This is a password-protected site, so you must obtain a login ID and password. To do so, simply click on the **Access Request Form**. Answer the questions and click on **Submit Form** to create your user name and password.

From the home page, click on the SSN logo. Enter your user name and password. Select **On-line Forms & DESEX Requisitions** from the list.

Scroll down to the **Quality Deficiency Reporting** section and select **QDR Entry Form**. Then fill in the blocks and click on **Submit Form**.





AN/PVS-7 Lens Cap

The protective cap for the lens on all models of AN/PVS-7 night vision goggles was left out of the TMs. Get the cap you need with NSN 5585-01-397-6608.

New M40/M42 Hood

The one-piece hood for the M40- and M42-series masks is being phased out. When an old hood needs replacing, order the quick-doff hood, NSN 4240-01-376-3152, and a universal second skin. The skin comes in two sizes: small, NSN 4240-01-413-1540, and medium/large, NSN 4240-01-413-1543. Instructions for using the new hood are in the -10 manuals for the M40 and M42 masks. The new hood lets soldiers be deconned without taking off their masks.

M88A1 Heat Diversion

Page 20 of PS 551 rightly said that tilting the oil reservoir access plate will deflect hot air from the personnel heater. That sends the heat under the floor plates and keeps the whole vehicle warm. Just make sure you move the portable fire extinguisher near the right side air particulate filter first. If the extinguisher gets too hot, it could discharge.

Chemical Defense Website

The Soldier Support and Biological and Chemical Command (SSBCCOM) has established a chemical defense equipment web site as part of the Army Electronic Product Support web site at:

<http://aeprs.ria.army.mil>

The site provides chemical equipment NSNs, item descriptions, and hyperlinks to equipment specialists and manufacturers. Click first on LOGISTIC SUPPORT and then CHEMICAL DEFENSE EQUIPMENT.

Black Hawk Gasket Purged

Use NSN 5330-01-414-9436 to get the starter gasket for your Black Hawk's auxiliary power unit. The old one, NSN 5330-00-237-5653, is being purged from the system because it's made of asbestos. The gasket is Item 4 in Fig 138 of TM 1-1520-237-23P-4.

Compressor Filter

NSN 2940-01-186-0592 gets the oil filter element and packing for the 250-CFM compressor shown in Fig 74 of TM 5-4310-452-24P. The gasket is available separately with NSN 5330-01-207-7381.

DISTRIBUTION To be distributed in accordance with the initial distribution number; DMI 243312 requirements for T8-43 PS Series.

Would You Stake Your Life *night now* on the Condition of Your Equipment?

If it's
METAL and **COLD**,
don't barehand it!



Anti-contact gloves
PREVENT INJURY