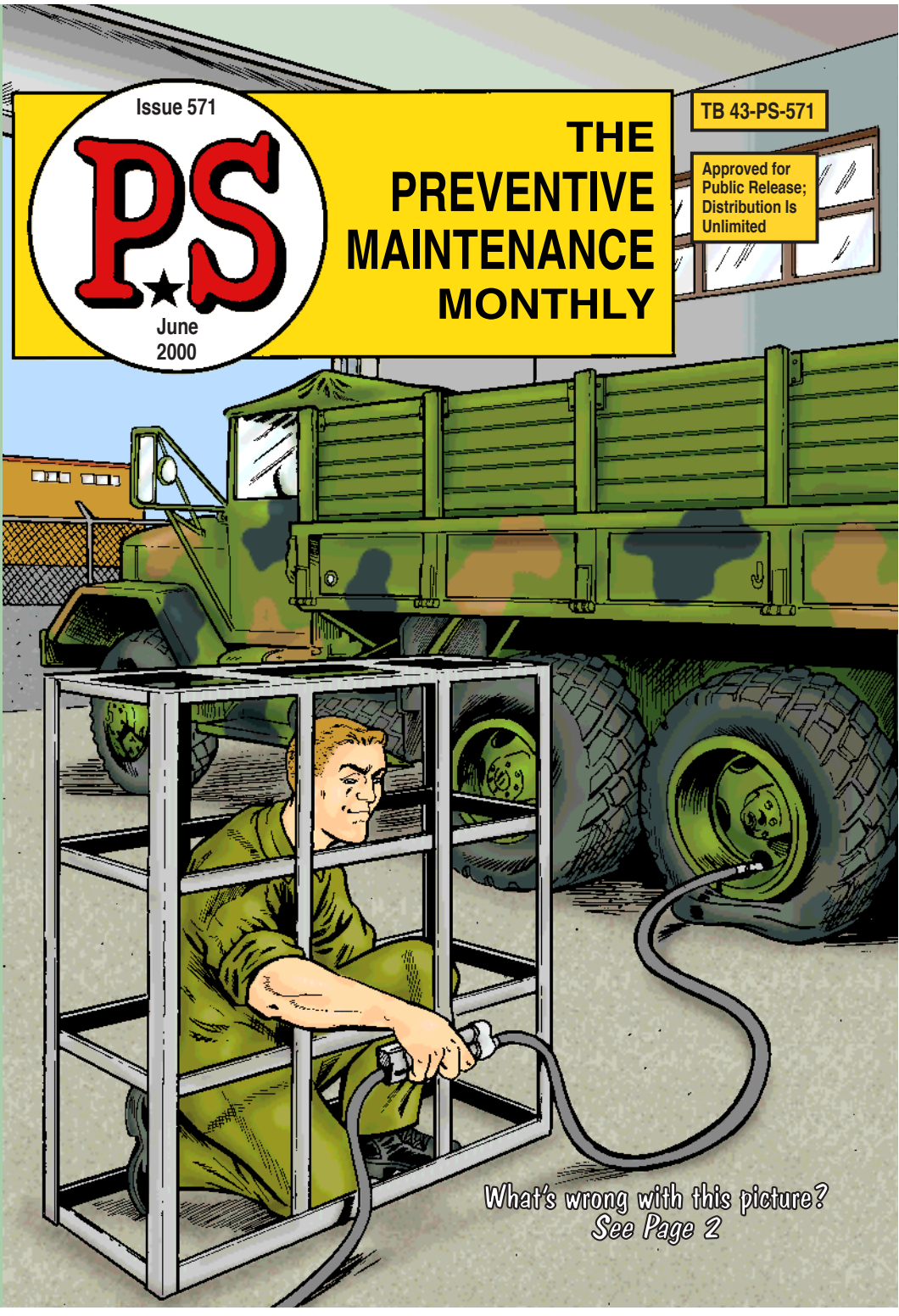
Issue 571

PS

June
2000

THE PREVENTIVE MAINTENANCE MONTHLY

TB 43-PS-571



What's wrong with this picture?
See Page 2

Keeping Your Guard Up

"Summertime...and the living is easy. Fish are jumpin', and the cotton is high."

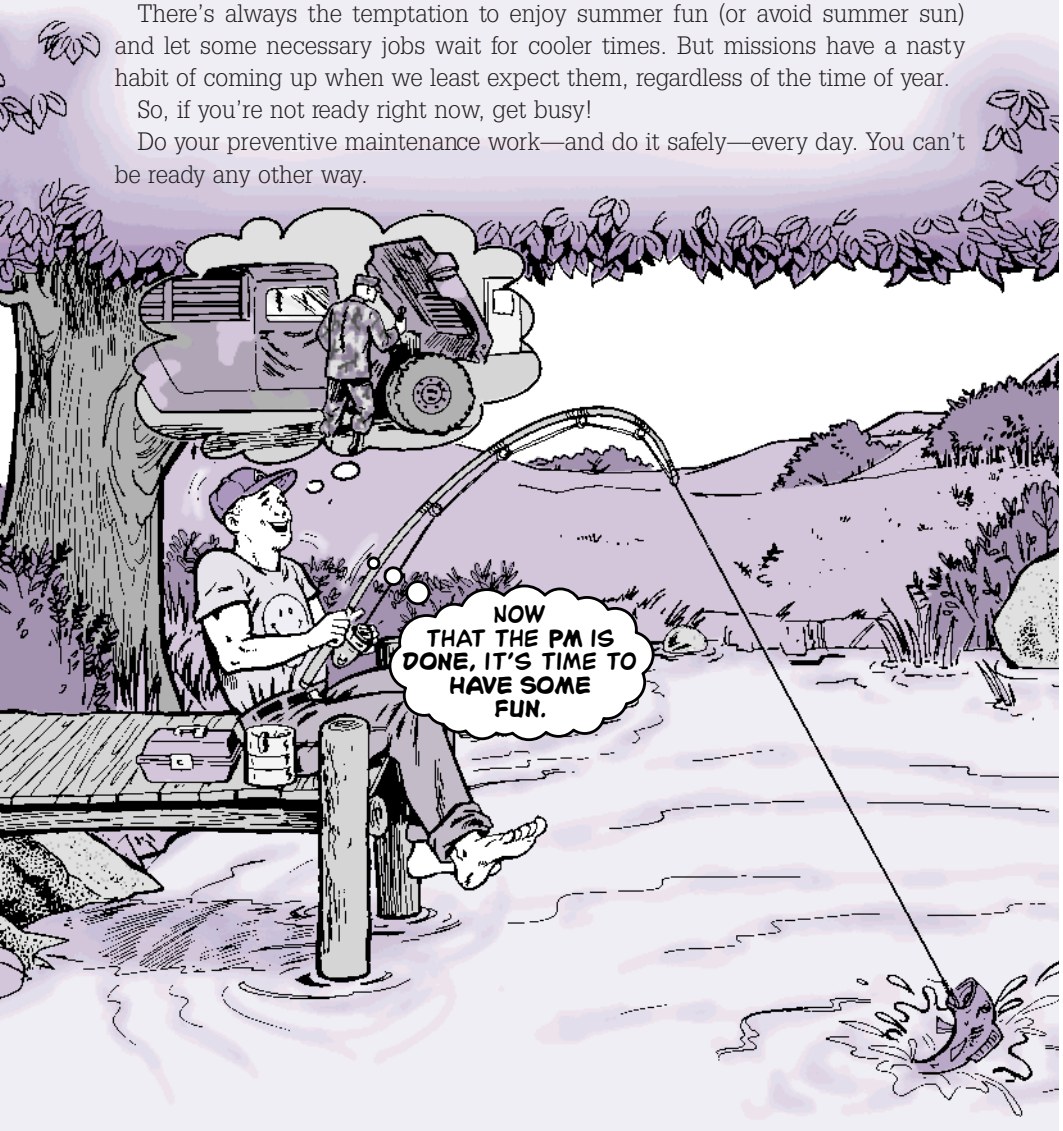
Lines from an old song that make you think summer is a time for fun, frolic and festivity. And it can be—after you've done your job as a soldier.

As a soldier, you're required to be ready, almost at a moment's notice, to accomplish a mission. That requirement extends to your equipment, whether you drive it, ride in it, carry it or just use it.

There's always the temptation to enjoy summer fun (or avoid summer sun) and let some necessary jobs wait for cooler times. But missions have a nasty habit of coming up when we least expect them, regardless of the time of year.

So, if you're not ready right now, get busy!

Do your preventive maintenance work—and do it safely—every day. You can't be ready any other way.



PS THE PREVENTIVE MAINTENANCE MONTHLY

TB 43-PS-571, The Preventive Maintenance Monthly, is an official publication of the Department of the Army, providing information for all soldiers assigned to combat and combat support units and all soldiers with unit maintenance and supply duties. All information published has been reviewed and approved by the agency responsible for the equipment, publication or policy discussed. Application of the information is optional with the user. Masculine pronouns may refer to both genders.

ISSUE 571 JUNE 2000

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
The Preventive Maintenance Monthly
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Air Up and Go? NO!

Any fatality is one too many. Just ask the friends and family of the young specialist who was recently killed by a blown tire ring while working on a HEMTT tire.

Airing up a tire shouldn't be a life-or-death situation. But, if you do it wrong, or carelessly, it can be.

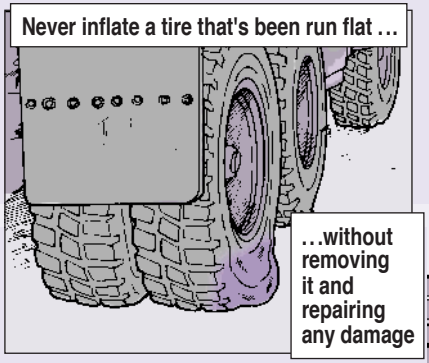
Exploding tires and wheels can injure or kill you. It's that simple. But, almost all injuries can be prevented if you follow the rules. That's just as simple.

Those rules are spelled out in TM 9-2610-200-14, *Care, Maintenance, Repair and Inspection of Pneumatic Tires and Inner Tubes*. If you have questions on the pub, or anything else concerning tires and wheels, contact your local TACOM logistics assistance representative.

Before You Do Anything

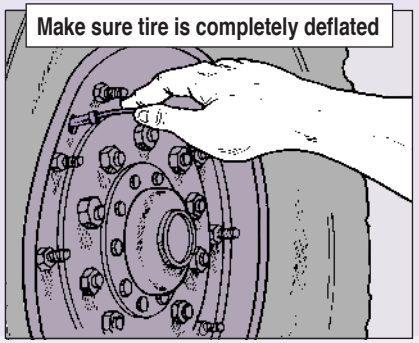
In the meantime, here are some of the rules that apply to working on all tires and wheels:

♦ Never inflate a tire that has been run flat or run with very little air in it until you have removed it and repaired any damage to the tire, tube or rim. Otherwise, damage you can't see could make the tire explode or wheel parts fail, harming you or others.

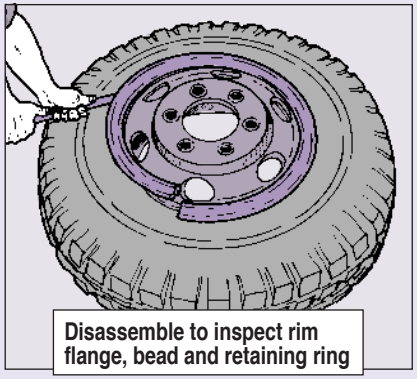


♦ Before removing a tire for service or disassembly, be sure there is no air pressure in it by removing the valve core.

♦ Make sure all the air is gone by running a stiff wire into the stem to clean it.

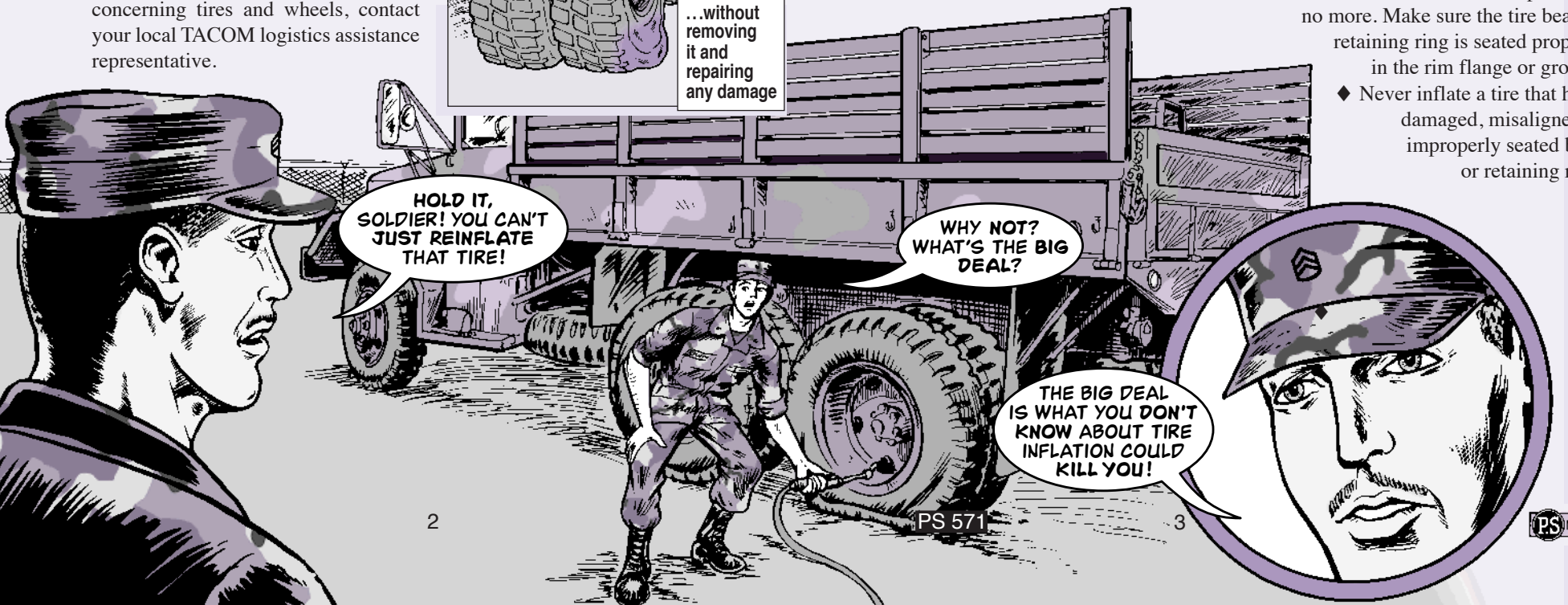


♦ Inspect the tire and all rim components for damage once you have them disassembled. Look closely at the bead, rim flange and retaining ring.



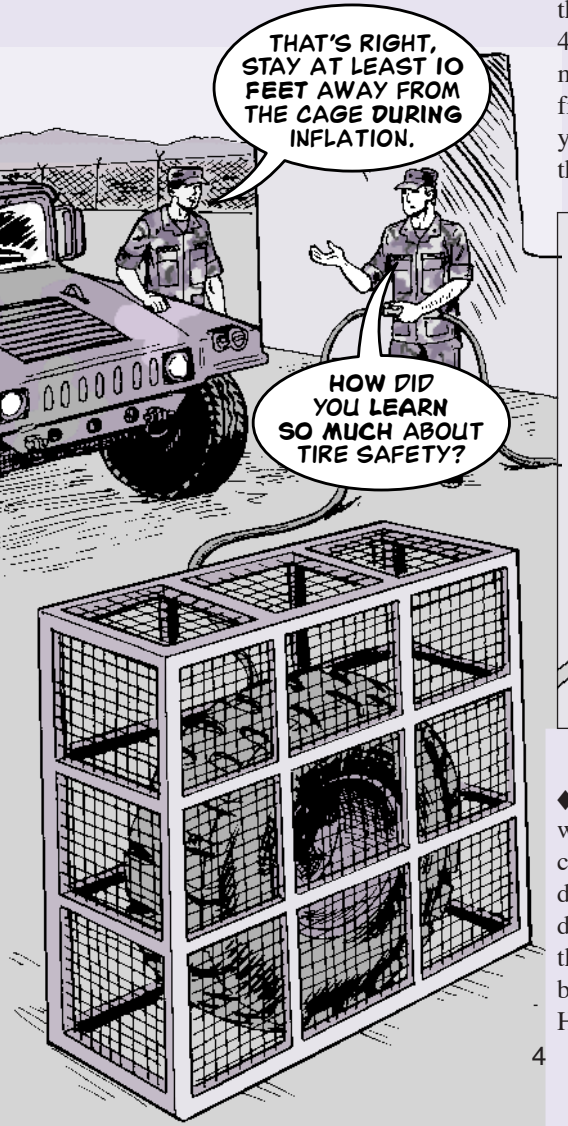
♦ After the tire and wheel are reassembled, inflate the tire to 3 psi—and no more. Make sure the tire bead or retaining ring is seated properly in the rim flange or groove.

♦ Never inflate a tire that has a damaged, misaligned or improperly seated bead or retaining ring.



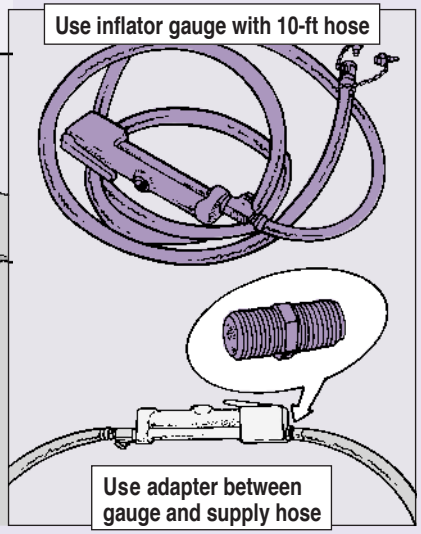
Safety Equipment and Tools

♦ Use only an OSHA-approved safety cage. NSN 4910-01-373-0267 gets a cage that's 40 3/4 inches long, 25 inches wide and 56 inches tall. Most tactical vehicle tires will fit inside. For larger tires, NSN 4910-00-025-0623 gets a cage that's 78 3/4 inches long, 35 inches wide and 86 1/4 inches tall.



If you have a locally fabricated cage, it must be inspected and approved before it can be safely used. Contact your safety office.

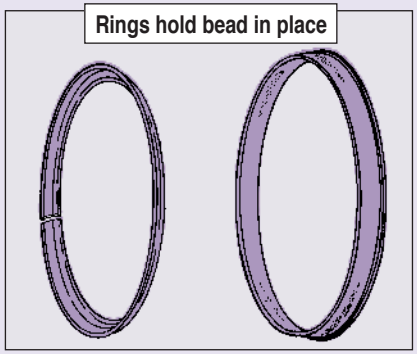
♦ Use tire inflation gauge, NSN 4910-00-441-8685. It comes with a 10-ft hose, quick-disconnect coupling and two coupler adapters. Attach the gauge assembly to your air supply hose with the straight pipe-to-tube adapter, NSN 4730-00-266-0533, that's in the Common No. 1 or No. 2 shop set's brass fitting kit. These items may also be in your vehicle -10 TM's additional authorization list (AAL).



Doing the Work

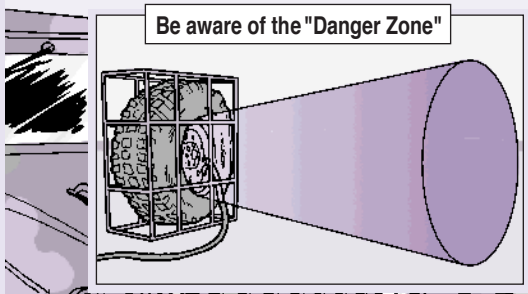
♦ If you're working with a single-piece wheel, inflate or deflate it either in a cage or on a positive wheel lock-down device (automatic tire mounter/demounter) or while it's mounted on the vehicle. This info is also good for bolt-together wheels, like those on the HMMWV.

♦ If you're working with a multi-piece wheel, **inflate or deflate** it only in an OSHA-approved cage. Multi-piece wheels can be identified by a retaining ring or side flange which is seated in a groove around the rim. The ring or flange holds the tire bead in place.



Step by Step

♦ Even if you are using a cage, stand a minimum of 10 feet away from the wheel and to the side, facing the tire tread. That's why you need the inflation gauge and its 10-ft hose. It gets you away from the danger zone. The danger zone is the area in front of or behind the rim or facing the tire sidewalls. Make sure no one stands in the danger zone while you're adding or removing air.



♦ Reseat the tire bead by adding up to 40 psi of air. If the TM-recommended air pressure for the tire is less than 40 psi, inflate it to no more than the recommended pressure.

♦ Carefully inspect the assembly to make sure that the tire bead and rim components have seated right. Don't use more than 40 psi or any other method to force the bead or components to seat. If it's not seating, deflate the tire and lubricate the bead area. Then reinflate to 40 psi. If the bead and components still don't seat, deflate the tire, demount it, disassemble the wheel and check the tire, rim and wheel components for damage.

♦ Once the bead and rim components seat right, add air up to the TM-recommended pressure.

♦ Check the final seat of the bead and rim components before removing the wheel from the cage or installing it on the vehicle. If you notice anything that doesn't look right, do not remove the wheel from the cage until it's safe to do so.

Fluid Restrictors Need Cleaning?

If the cab or spare tire carrier on your FMTV won't go up or down using its hydraulic control, your first trouble-shooting check should be the fluid in the air/hydraulic power unit.

So, you check it and the fluid level's fine. You can see there's no water in the unit. There's no Dexron or other wrong fluid in it, either. What's next?

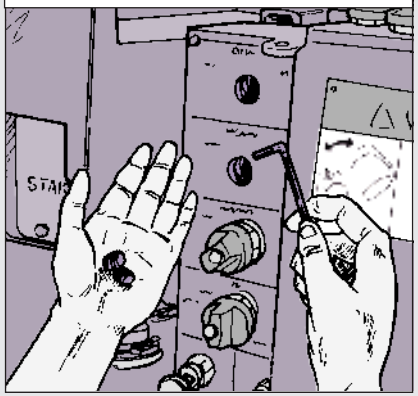
Next is a check of the fluid restrictors—the TM calls them orifice plugs—located at the back of the CAB TILT and SPARE TIRE valve cavities. Clogged restrictors will keep the valves from working.

Since the removal and cleaning procedures aren't found in the TMs, here's what you need to do:

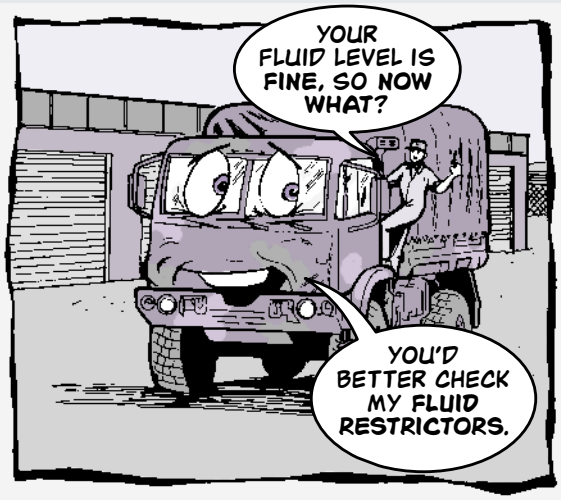
1. Remove the affected valve. Refer to Para 19-4 in either TM 9-2320-365-20-3 (for 2 1/2-ton models) or TM 9-2320-366-20-3 (for 5-ton models).

2. Remove the restrictor with a 4mm hex head wrench that's at least 4 1/4 inches long, like NSN 5120-01-045-4889 in the No. 1 or No. 2 Common shop sets.

Remove restrictors with hex head wrench



3. Clean the restrictor with a small piece of wire (a single strand of 18-gauge electrical wire works well).



4. Rinse the restrictor in dry cleaning solvent and blow it dry with shop air.

5. Reinstall the restrictor and valve. Recheck the fluid level in the air/hydraulic power unit since you will lose some in the process.

You should have power restored to the cab and spare tire valves. If not, your next move is to disassemble and inspect the manifold itself.

Adding Runflat Lube

There is an art to adding lubricant to the inside of HMMWV tires before installing the runflat device. Do it wrong and you'll wear out a runflat and a tire before their time.

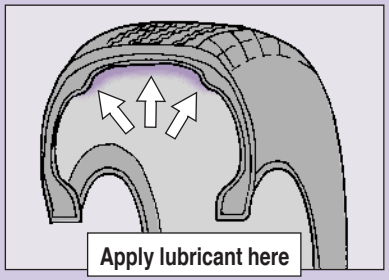
Here's the secret of the art:

1. If the tire's been used before, remove any foreign matter or old lubricant with warm soapy water and a brush. Let the tire dry.

2. Use all of one 11-oz tube of lubricant, NSN 2640-01-419-6200, for each runflat device. Spread the lubricant evenly over the inside of the tire to a depth of 1/8 to 3/16 inch. Use a 2-in to 4-in paint brush to apply the lubricant.

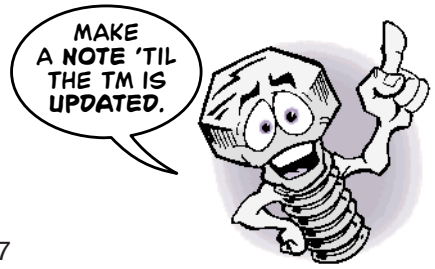
Areas inside the tire that get covered include the crown and the upper portion of the inner sidewall.

To get a 55-gal drum of the lubricant, order NSN 2640-01-457-5552.



HMMWV Slave Cable Screw

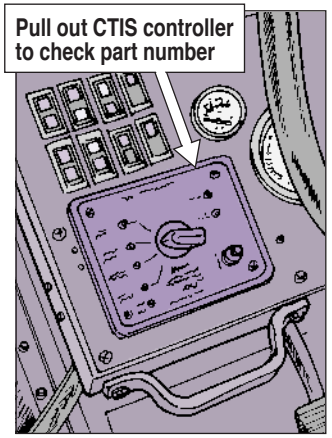
Use NSN 5305-00-269-2801 to get the **3/8-24 x 3/4-in** hex screw that attaches the power cable to the slave receptacle on HMMWVs. The one shown for Item 1, Fig 64, in TM 9-2320-280-24P-1 brings a **3/8-16 x 3/4-in** hex screw.



Palletized Loading System . . .

CTIS Controller Surge Protection

A central tire inflation system (CTIS) controller surge protection kit is available for M1074/M1075 PLS tractors not already equipped with a surge protector.



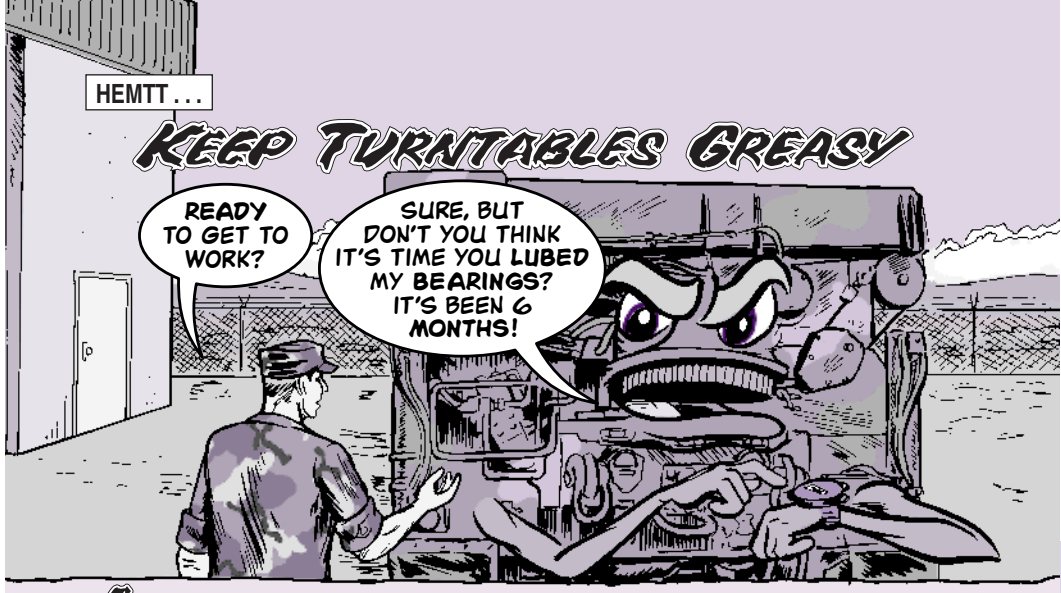
The surge protector disconnects power to the CTIS controller any time it senses a voltage spike of more than 30 volts. This prevents damage to the controller when the engine is accidentally started or stopped with the CTIS switch on. (Drivers should turn off CTIS power **before** starting or stopping the engine.)

Once the voltage drops below 30 volts, power is restored. No reset is required.

The kit, NSN 2530-01-459-4513, modifies older controllers in the supply system under NSN 4810-01-359-2945. These older controllers, identified by part number (PN) 10214033, do not have built-in protection.

The new controller, identified by PN 10214033REVA but carrying the same NSN as the older one, has the surge protection built in.

Installation instructions come with the kit.



Bearings wear out when they don't get grease regularly, so make sure the turntable bearings on your HEMTT crane stay greasy.

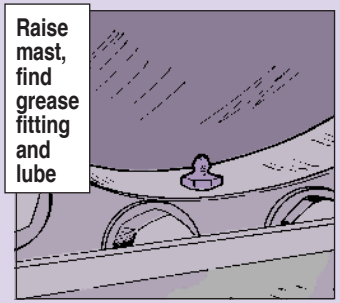
Every 6 months or 250 operating hours, whichever comes first, the bearings get GAA, according to TM 9-2320-279-20-1. But many of them don't get it at all because you can't see the grease fitting unless you raise the crane mast.

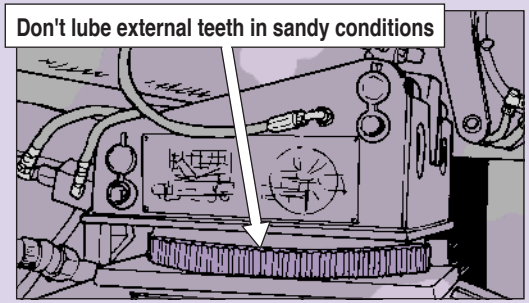
If you don't lube them, the bearings go dry and wear out, which will cost your unit a bundle.

Raise the mast, find the fitting and lube it this way:

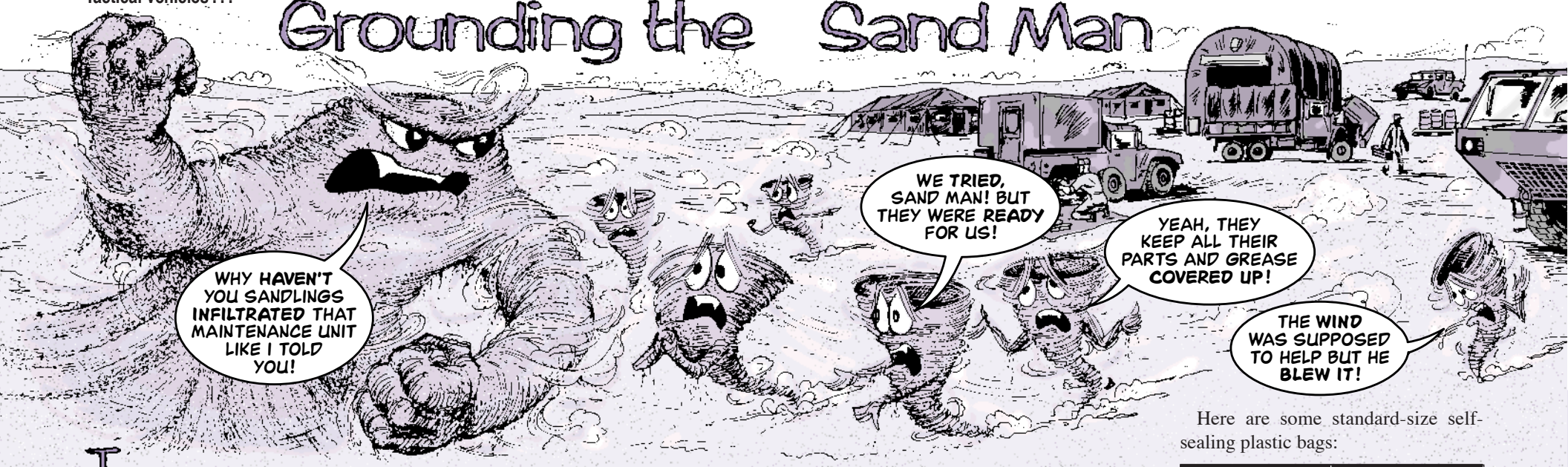
1. Pump in GAA until you see new grease coming out of the upper seal.
2. Rotate the crane 90˚ and repeat step 1. Continue rotating and lubing until the turntable has been lubed four times.
3. Then rotate 360˚ to spread the lube.

Note: Don't lube the external gear teeth on the turntable when you're operating in desert sand. The lube attracts sand and causes more damage than it prevents.





Grounding the Sand Man

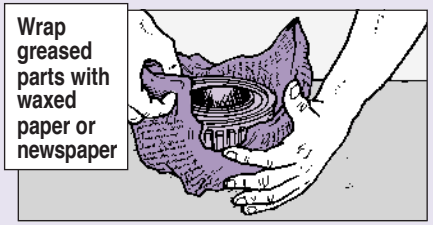


The Sand Man doesn't bring sleep in the desert. He brings misery to mechanics faced with the job of lubing or greasing components that attract sand like magnets.

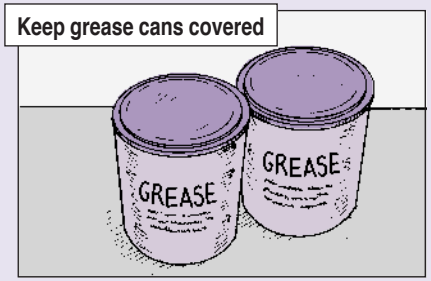
Sand and grease make a combination like sandpaper that works its damage on metal surfaces and rubber seals.

You can't avoid the Sand Man, but you can reduce his effects by:

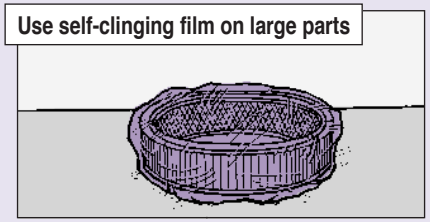
- Keeping sand and dust off parts while you're making repairs by wrapping greased parts with waxed paper or newspaper.



- Keeping the lids on grease cans.



- Using plastic wrap to keep dust and sand out of large components. NSN 8135-00-043-5331 gets an 11½-in by 100-ft roll of self-clinging plastic film.



- Using plastic bags to hold bearings and small parts like nuts and bolts that might get lost or dirty before you need them again. Tag the bags to make sure everything goes back on exactly where it came off.

Here are some standard-size self-sealing plastic bags:

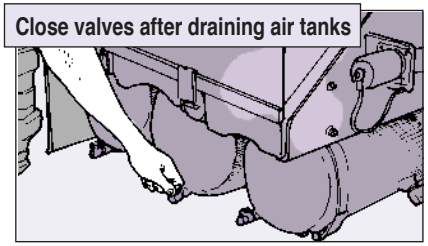
Size (inches)	NSN 8105-00-837-
6 x 6	7754
8 x 8	7755
11 x 10½	7756
12 x 12	7757

Keep Air Valves Closed

No matter what type of equipment you're driving or operating, always close the valves after you drain the air tanks. That keeps a buddy from driving off with the valves open.

Valves left open keep the vehicle's air brake system from building up air pressure for applying the brakes. That's an accident waiting to happen.

In winter, open valves can also freeze in the open position—then you **can't** close them.



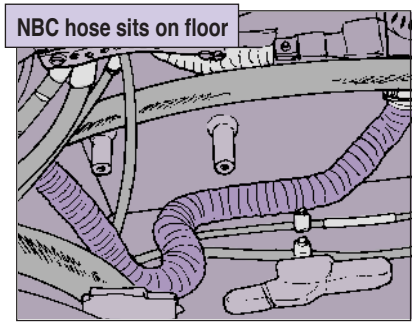
Hose Down Hose Problems

Dear Editor,

During our tanks' annual services, I noticed that the driver's NBC hose takes a lot of abuse.

When stowed properly, the hose lies on the floor. That means it can be crushed when the driver's seat is lowered. It also means that it gets exposed to water, dirt, hydraulic fluid (FRH) and other gunk. It doesn't take long for the hose to deteriorate.

NBC hose sits on floor

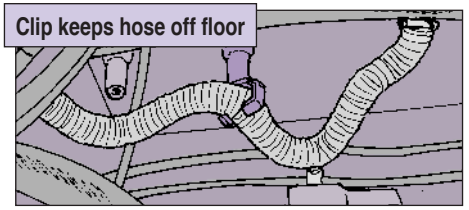


On top of that, the driver has to connect his M42A1 chemical protective mask to the hose when operating in NBC mode. A contaminated hose puts the driver's health at risk. FRH fumes can cause anything from irritation to permanent lung injury.

We've solved this problem by installing a spring clip to the standoff on the hull wall near the NBC hose. We then secure the hose in the clip, which keeps it off the floor and out of harm's way.

Attach the spring clip, NSN 5340-00-060-9344, to the standoff using a lock washer, NSN 5310-00-682-5930, and hex head bolt, NSN 5305-00-071-2506.

Clip keeps hose off floor



You may need to enlarge the mounting hole on the clip. Just drill it out with a 1/4-in bit. Also, crimp the clip's flanges slightly so it holds the hose securely.

Replacing the hose, air duct and quick-disconnect will cost more than $55, not to mention the possible health concerns. Our fix costs less than $3.50.

SFC Brian Brashear
MATES, WAARNG
Yakima, WA

FROM THE DESK OF THE Editor

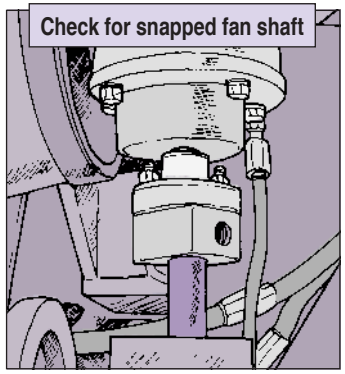
Now that's an idea to "clip" and keep! Good job!

Don't Forget Scavenger Fan

Mechanics, a working precleaner scavenger fan is critical to keeping the Abrams' air induction system up and running.

All it takes to knock out the fan is a small rock or chunk of dirt. If a rock gets sucked into the scavenger fan, it can jam between the fan blades and the housing. The sudden stop snaps the hollow aluminum fan shaft.

Check for snapped fan shaft



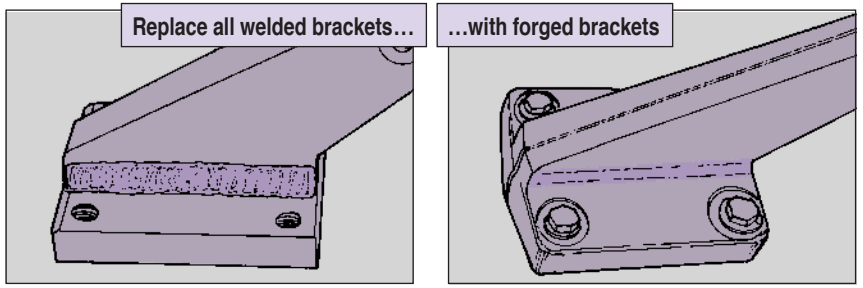
With no fan, dirt, leaves and other debris that collect on the precleaner don't get removed. Then the V-packs get clogged faster than normal and pretty soon the tank's out of business.

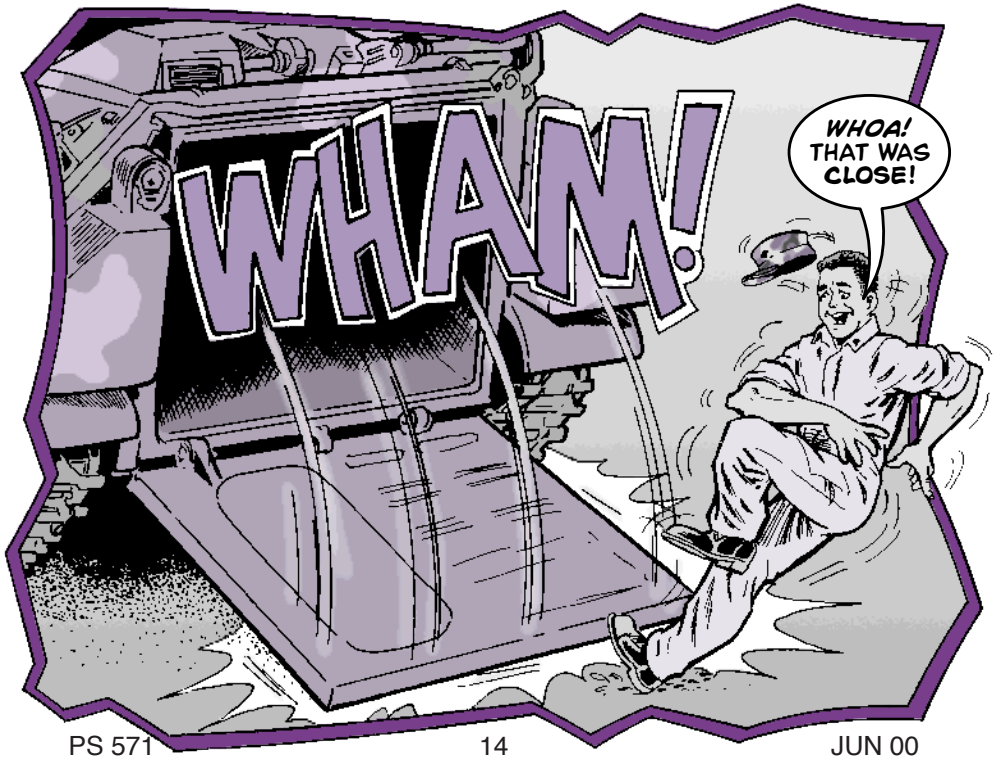
If you're getting a lot of complaints about V-packs clogging too quickly, make the scavenger fan shaft one of your first checks. If it's broken, replace it.

Heads Up on Bad Bracket

Crewmen, nothing will ruin your day like having a 1,000-lb Bradley ramp fall on you. But that's what can happen if the ramp bracket breaks when you're in the way.

Though covered by only one NSN—3040-01-116-0314—two different ramp brackets are used on the Bradley fleet. One is forged and the other is welded. The welded bracket is defective and could snap.





Check your Bradley—right now—to see which bracket is installed. If your vehicle has the welded bracket, secure the ramp in place with towing cables until you get the brackets replaced.

Follow the procedure in Para 8-7 of TM 9-2350-252-BD, Para 8-6 of TM 9-2350-284-BD, or TACOM Ground Precautionary Message 00-001 to secure the ramp. Once properly secured, you can still access the troop compartment through the ramp access door.

Don't try to order a replacement bracket through the supply system. Instead, contact Faye Gorecki at DSN 786-8257 or (810) 574-8257 or send an e-mail to:

goreckif@tacom.army.mil

Provide the serial number of each vehicle with a welded bracket and a forged bracket will be forwarded by overnight express.

Mechanics, when replacing the welded bracket, reuse all of the hardware except the locknut, NSN 5310-00-959-1488, that attaches the bracket to the connecting link. A new locknut will come with the forged bracket.

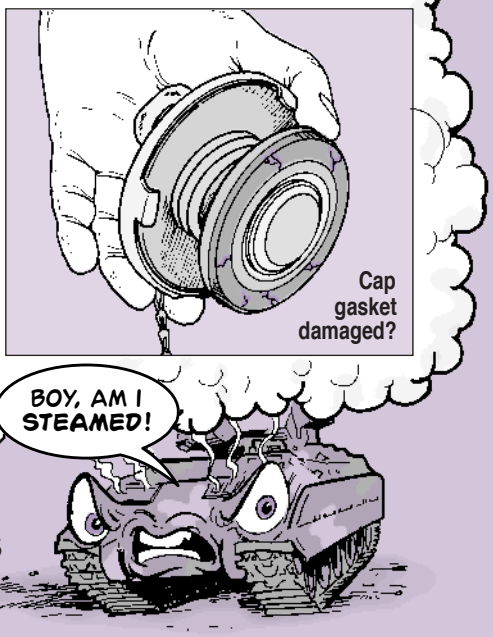
Return the welded bracket in the postage paid package that comes with the forged bracket.

Keeping Your Cool

Crewmen, you can help your Bradley keep its cool by keeping a close eye on its radiator cap.

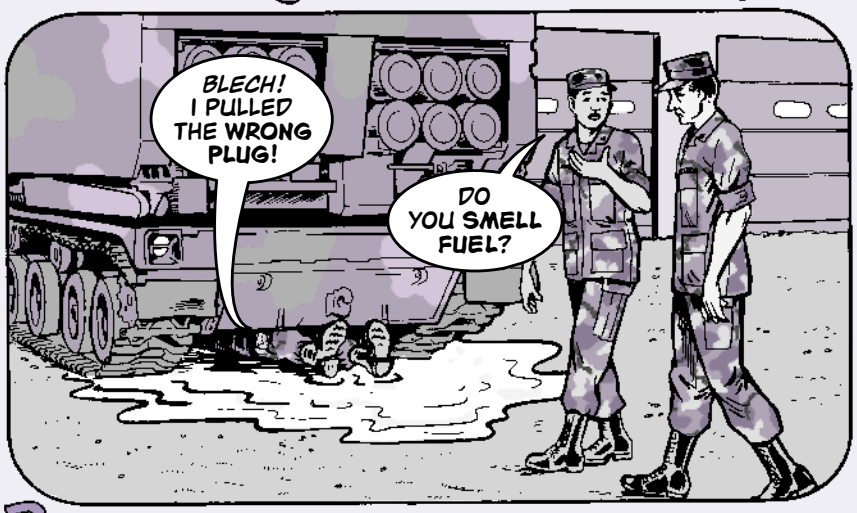
Ordinary use from opening and closing the cap wears down the rubber gasket inside. When the gasket wears enough, the cooling system can't pressurize properly, coolant escapes, and the vehicle overheats.

So, eyeball the gasket for cuts, tears or unusual wear. Then report a bad radiator cap to your mechanic. He'll order a new one with NSN 5342-01-398-2835.



MLRS Carrier . . .

A Plug for Draining



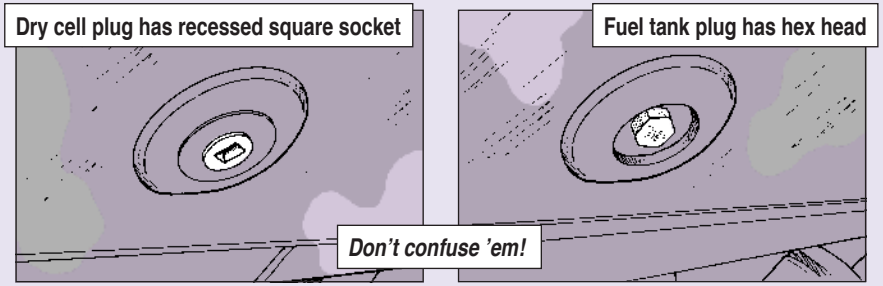
Drivers, there are 10 plugs for draining the water that collects in the hull of your MLRS. Only nine are usually remembered, though.

The dry cell drain plug is the forgotten one. It's located between the vehicle's two fuel tanks. If water from rain, washing and condensation isn't drained from this area at least weekly, it will soak and corrode the 1W30 wiring harness.

You're not going anywhere when that happens because the fuel pumps won't work.

Be very careful when you crawl under the vehicle to open the dry cell plug. It's located next to the fuel tank drain plugs. If you get them mixed up, you'll have a major fuel spill.

Just remember that the dry cell drain plug has a recessed square. The fuel cell plugs look like conventional hex-head bolts.



AVLB . . .

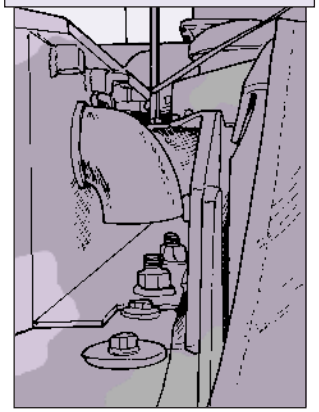
Keep Air Intake Open

Crewmen, your AVLB's engine needs plenty of air to run smoothly.

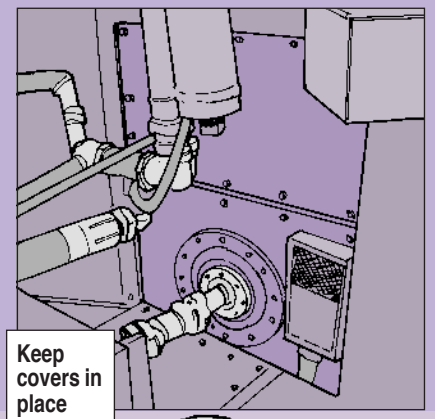
That means the intakes to the air induction system need to be clear of stored items—like a tarp, camouflage net or duffel bag—so the engine gets its needed supply of air.

The tell-tale signs of an air-starved engine are excessive black exhaust and a big drop in power until the vehicle eventually shuts down. Engine and transmission damage are the end results.

It's already happened to some crews. Don't be the next. Keep the area around the air inlets clear of all items at all times. It's the best way to ensure the flow of air and smooth operation.



Keep Access Covers in Place

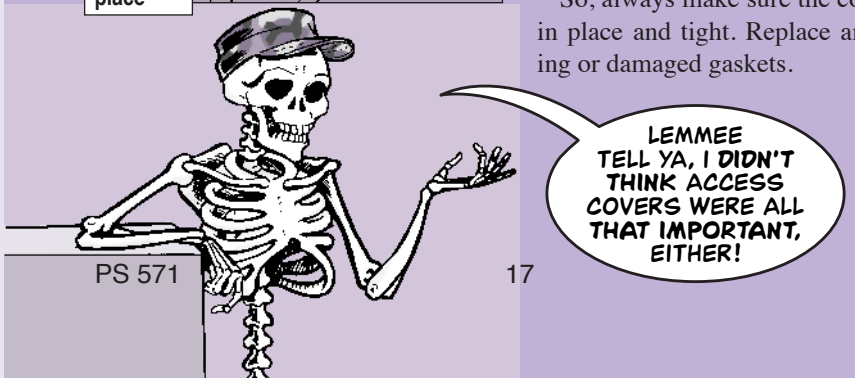


A missing or loose access cover between the crew and engine compartments on your AVLB can be hazardous to your health.

Loose or missing covers let engine exhaust gases into the crew compartment. Carbon monoxide in exhaust gas can kill you!

Loose or missing covers will also let an engine fire spread into the crew compartment before you have a chance to get out.

So, always make sure the covers are in place and tight. Replace any missing or damaged gaskets.

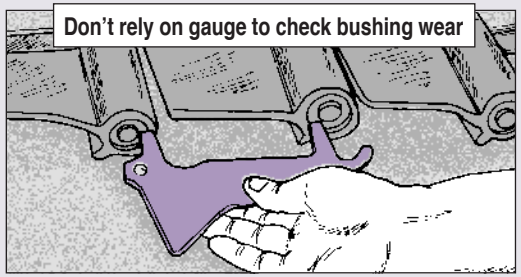


M113-Series FOV . . .

Use Gauge as Guide Only

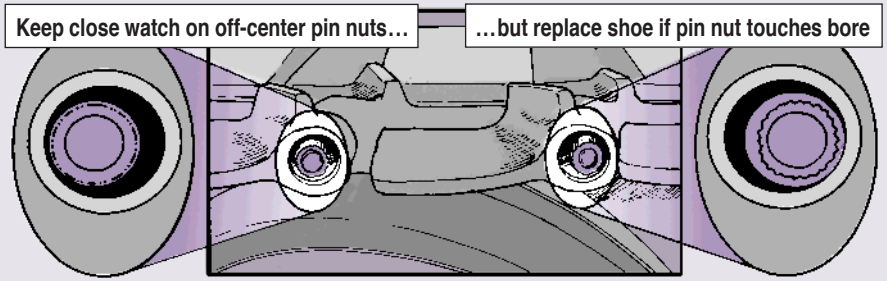
Crewmen, your vehicle's track and sprocket gauge is a great guide for checking bushing wear, but it's not the final authority. You are.

Sometimes the gauge, NSN 5220-01-041-9920, indicates that bushing wear is OK, even though the pin nuts are rubbing against the bushing bores. That happens when the pin bushing in one shoe wears more than the pin bushing in the other shoe.

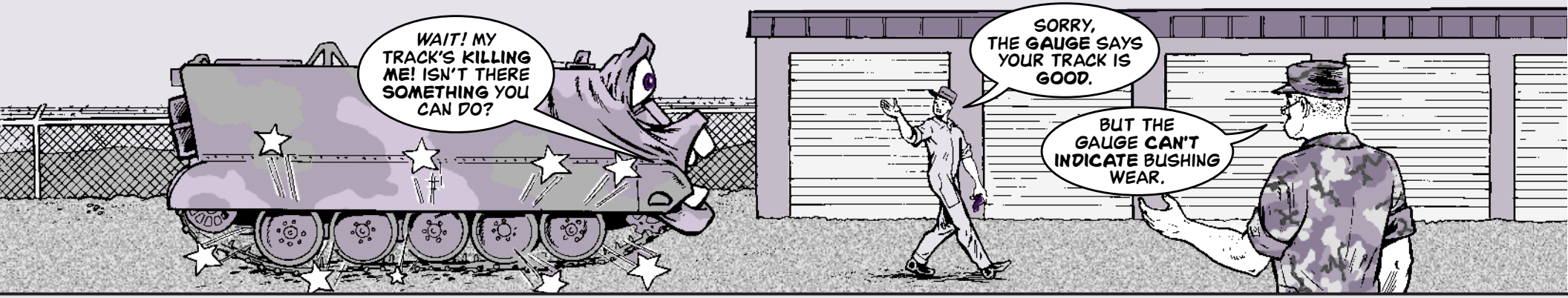


So always—***every time***—after you've used the track and sprocket gauge, look to make sure the pin nuts are centered in the bushing bore. Shoes with an off-center pin nut need careful watching.

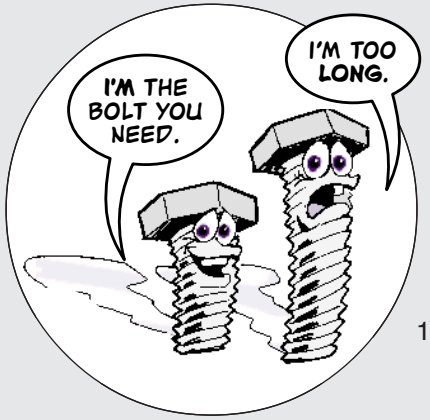
If the pin nut is touching the inside surface of the bushing bore, the shoe's no good. Replace it no matter what the gauge tells you.



The track and sprocket gauge is still a good, quick way to measure sprocket wear and track tension. But when it comes to bushing wear, it's just a guide—like it says in your -10 TM. Always let your eyes and common sense be the final judge.



M113A3 FOV . . .

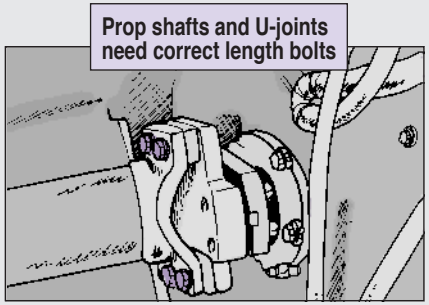


Beware of Wrong Bolts

Mechanics, a bolt is a bolt is a bolt, right? Not when it comes to installing the propeller shaft and universal joints on a vehicle from the M113A3 family.

Some mechanics are using bolt, NSN 5305-01-216-7378, which is supposed to be used for attaching the output flange to the transmission. This bolt is about 1 inch too long for securing the prop shafts and U-joints, so it damages the output housing on the transmission.

The right bolt is NSN 5305-00-719-5239. It's just the right length for securing the prop shaft and U-joints without damaging the output housing.



M992A2 Ammo Carrier . . .

Lube 'em or Heave 'em?

Dear Half-Mast,

Some of our M992A2 ammo carriers still have the old grease-lubricated vaneaxial fans, NSN 4140-00-756-3612.

Trouble is, the TMs only have information on maintaining and lubing the new oil-lubed fans, NSN 4140-01-284-5722.

Money's tight so we hate to replace the old fans, especially since they still work great. But if we can't maintain them, their days are numbered anyway.

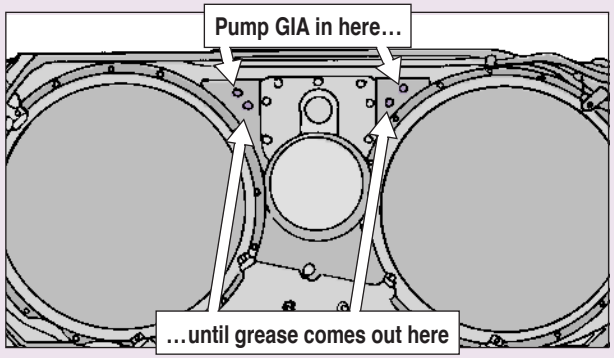
What should we do?

SSG F.L.C.

Dear Sergeant F.L.C.,

First of all, don't replace the grease-filled fans until they become unserviceable. That would be a waste of good money.

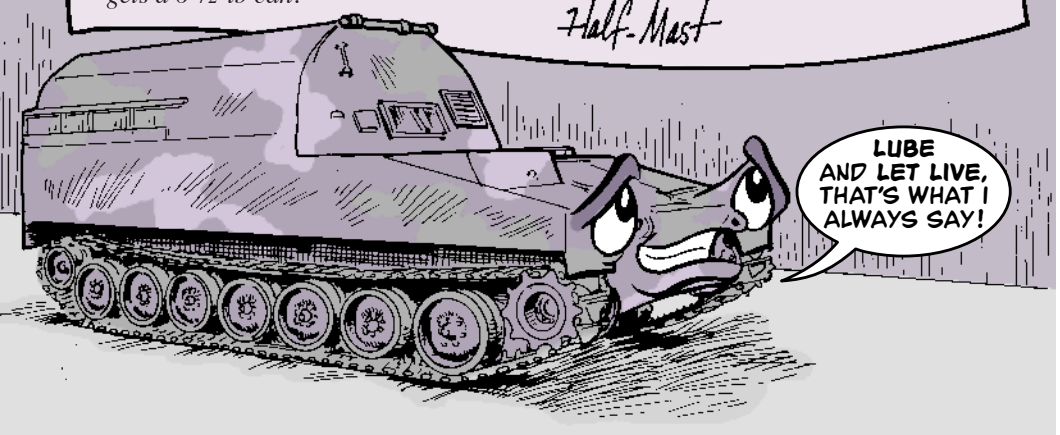
Second, lube the fans semiannually with instrument and aircraft grease (GIA). Just pump GIA into the grease fitting of each fan until grease comes out of the relief fitting.



Make sure to wipe off any excess grease when you're finished to prevent clogging of the radiator core.

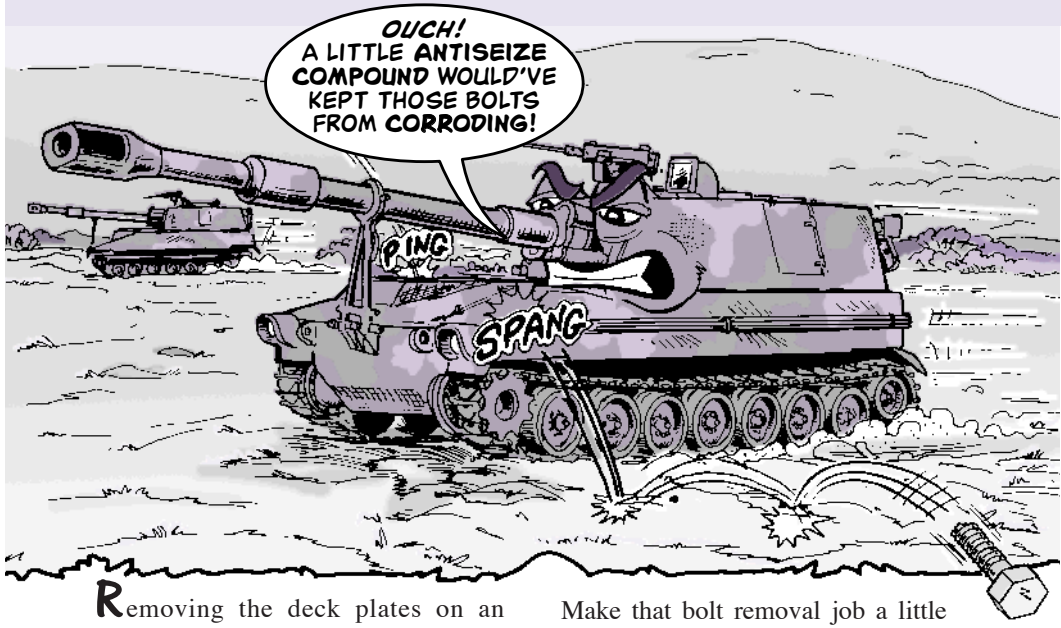
Get a 1 3/4-lb can of GIA with NSN 9150-00-985-7246. NSN 9150-00-985-7247 gets a 6 1/2-lb can.

Half-Mast



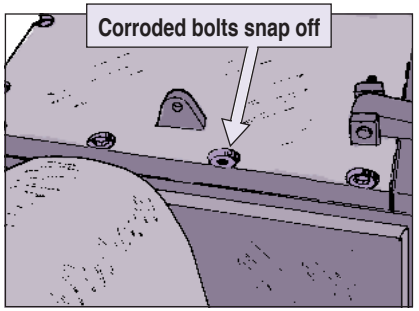
M109-Series SP Howitzer, M992-Series Ammo Carrier . . .

Bolt Removal Made Easy



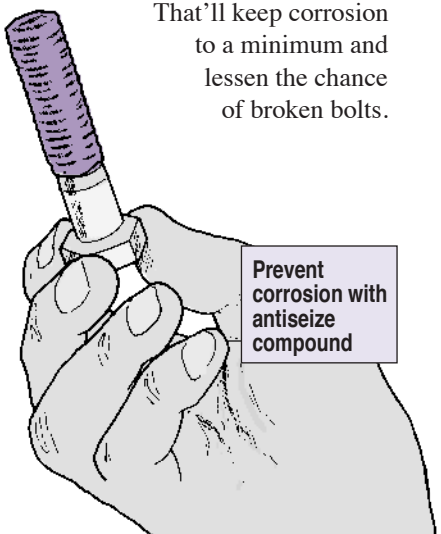
Removing the deck plates on an M109-series howitzer or M992-series ammo carrier isn't easy, especially if the deck plate bolts are corroded. In fact, a corroded bolt is more likely to snap off—either in the field or when you try to remove it.

Your mechanic will have to drill and tap out broken bolts.

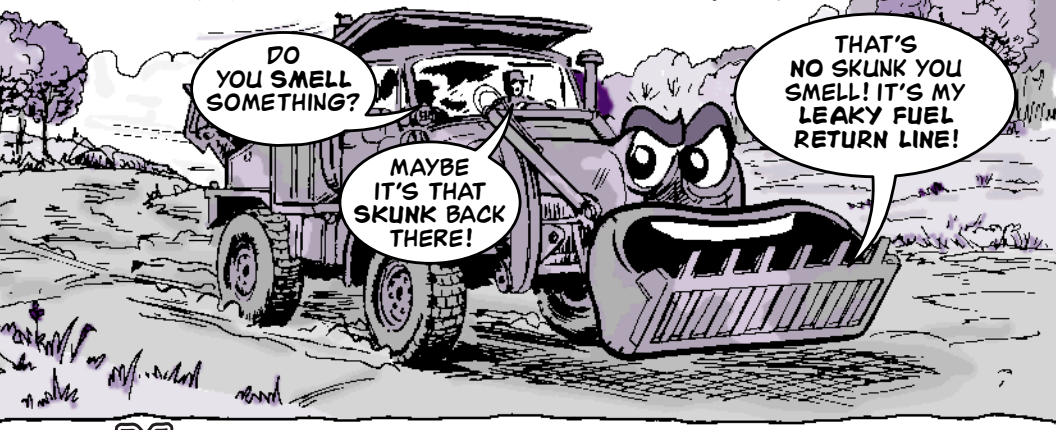


Make that bolt removal job a little easier. The next time you have the deck plates off, coat the deck bolt threads with antiseize compound, NSN 8030-01-044-5034, before putting them back on.

That'll keep corrosion to a minimum and lessen the chance of broken bolts.



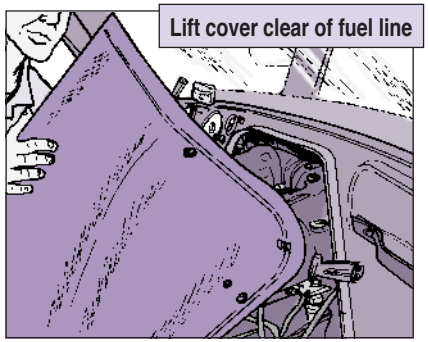
Watch the Fuel Line



Mechanics, the SEE's fuel return line is an open target for bumps and rubs when you remove and replace the engine cover (doghouse) during checks and services.

Over time, enough bumps and rubs wear a hole in the line. You'll know something's up when the engine runs rough, won't run at all, or you smell fuel inside the cab.

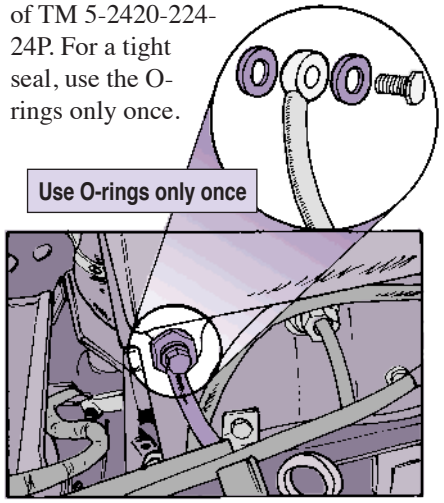
You can head off those problems by lifting the cover clear of the fuel return line when you need to get at the engine.



Looking for Leaks

And, while you're looking for leaks during PMCS, touch the return line where its multiple connector mounts into the engine block. If it feels wet, the metal O-rings on each side of the connector are probably shot.

Replace them with NSN 5330-00-140-7701. They're Item 2 in Fig 40 of TM 5-2420-224-24P. For a tight seal, use the O-rings only once.

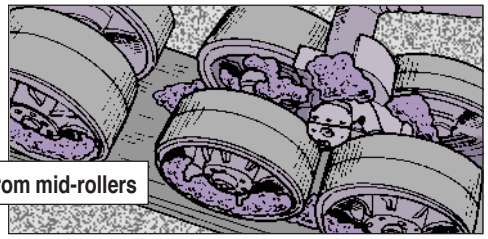


Wash Away Mud and Crud

Operators, before you leave your DEUCE for the day, make sure you dig out and wash off all the mud it has picked up during operations.

That earthmover can work in mud up to its catwalk platform. But the mud will harden around the vehicle's drive wheels, scraper bars, mid-rollers, front and rear idler wheels, and belt guides.

Once hard, that mud prevents the mid-rollers from turning properly. Flat spots form on the rollers and cause extra wear on the rubber track.


Clean mud from mid-rollers

So get rid of the mud, and while you're at it, look for loose bolts, leaking seals, oil on the mid-rollers, and uneven track wear. Report bum parts or anything that needs adjusting.

You also need to clean the mud away to get at the suspension's grease fittings. There are more than two dozen fittings on each side of the earthmover that need lube!

Air Filters Need Extra Attention

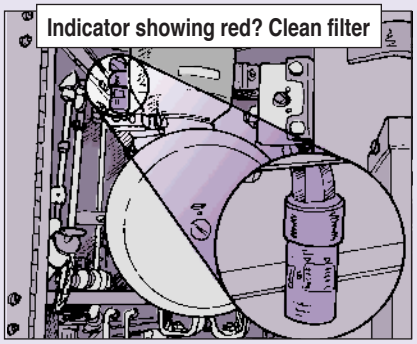
Operators, the new DEUCE is a real workhorse for preparing airstrips, roads and defensive positions. In a nutshell, it likes to move dirt and lots of it.

To keep your DEUCE on the job, get real familiar with TM 5-2430-200-10 for sure, but also heed these PM tips for smooth airflow through the DEUCE's air filters.

Air Filter Brush Off

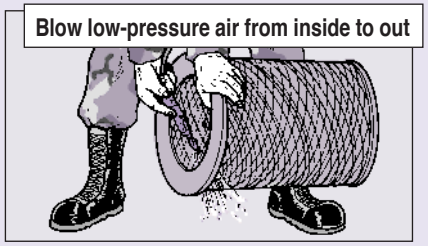
A clean air filter element is crucial, especially in dusty areas. Keep an eye on the air cleaner restriction indicator next to the canister. If the indicator moves from yellow to red, open the canister and pull out the air filters. The secondary filter is inside the primary.

Indicator showing red? Clean filter



Use low-pressure air—30 psi or less—from inside to outside to loosen dirt and sand from the primary air filter element. Never bang the filter on a hard surface. That damages it. Replace the primary air filter element once a year, or after six cleanings.

Blow low-pressure air from inside to out



When the earthmover's secondary filter gets clogged, replace it. Here's how to tell if it's clogged:

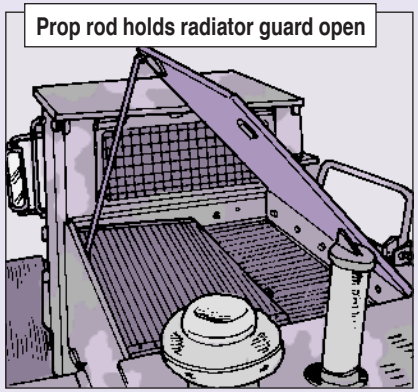
* After installing a clean or new primary filter element, the restriction indicator moves into the red zone—or you see black exhaust—when you start the engine.
* If you've reset the indicator and it stays in the red zone after installing a new or clean primary filter element.

Clean Radiator Fins

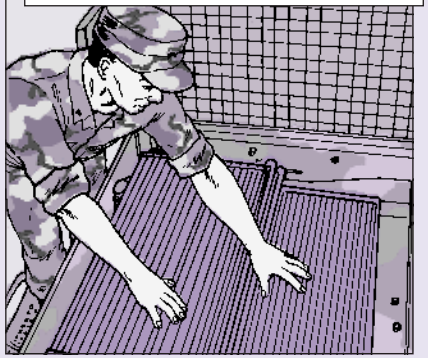
To keep the DEUCE running cool, the radiator fins need to be cleaned, too.

Use the prop rod to keep the radiator guard open. Look for leaves, dirt, and trash wedged between the radiator's fins. Clean the fins **only** with low-pressure water and low-pressure air.

Prop rod holds radiator guard open



Check fins for leaves, dirt, foreign matter



PS MORE

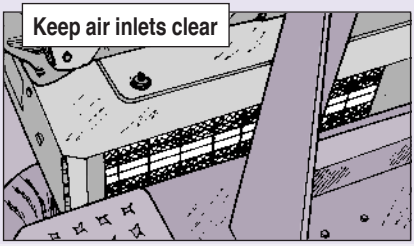
And while you're at it, look for bent cooling fins. Bent fins stop airflow through the radiator and can cause both the engine and transmission to overheat. You can keep the fins straight by keeping feet, tools and other weighty things off them.

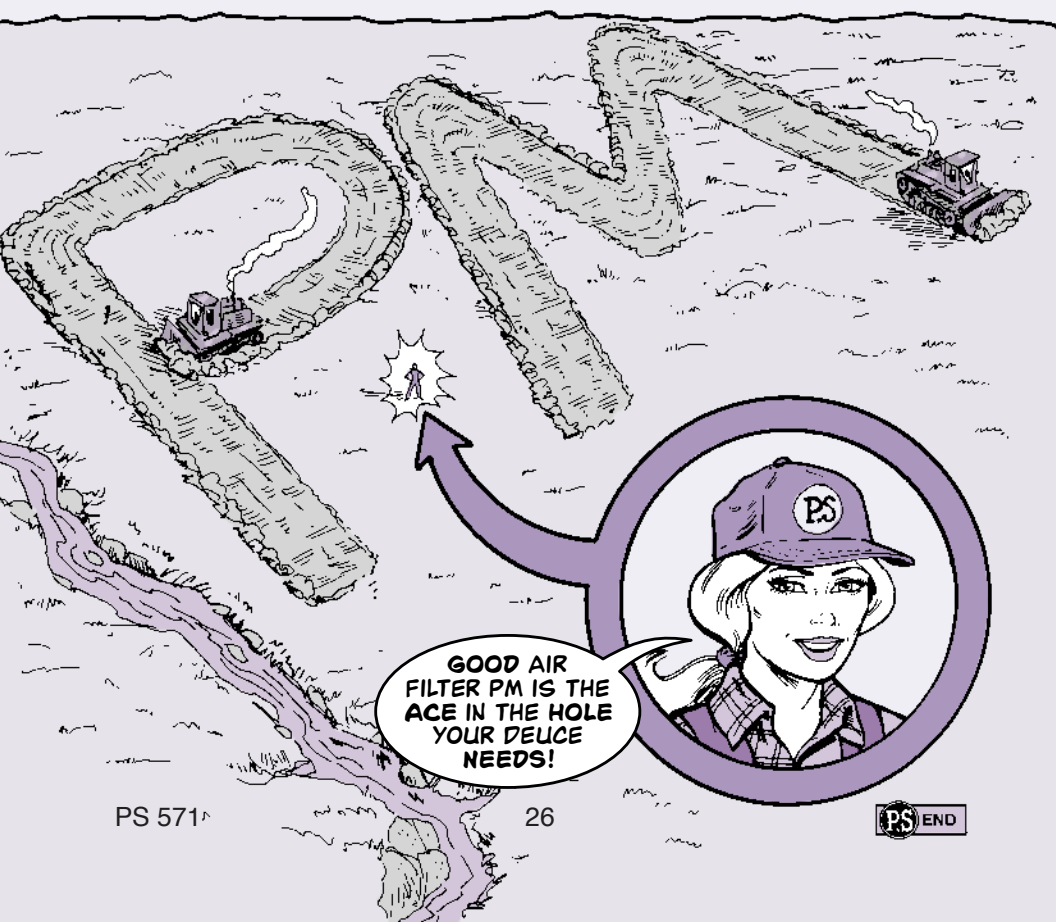
Once the fins are cleaned and the radiator guard is back in place, makesure items like camouflage netting and duffel bags are kept off the radiator's air intake grills. They can also restrict airflow.

Cab Air System

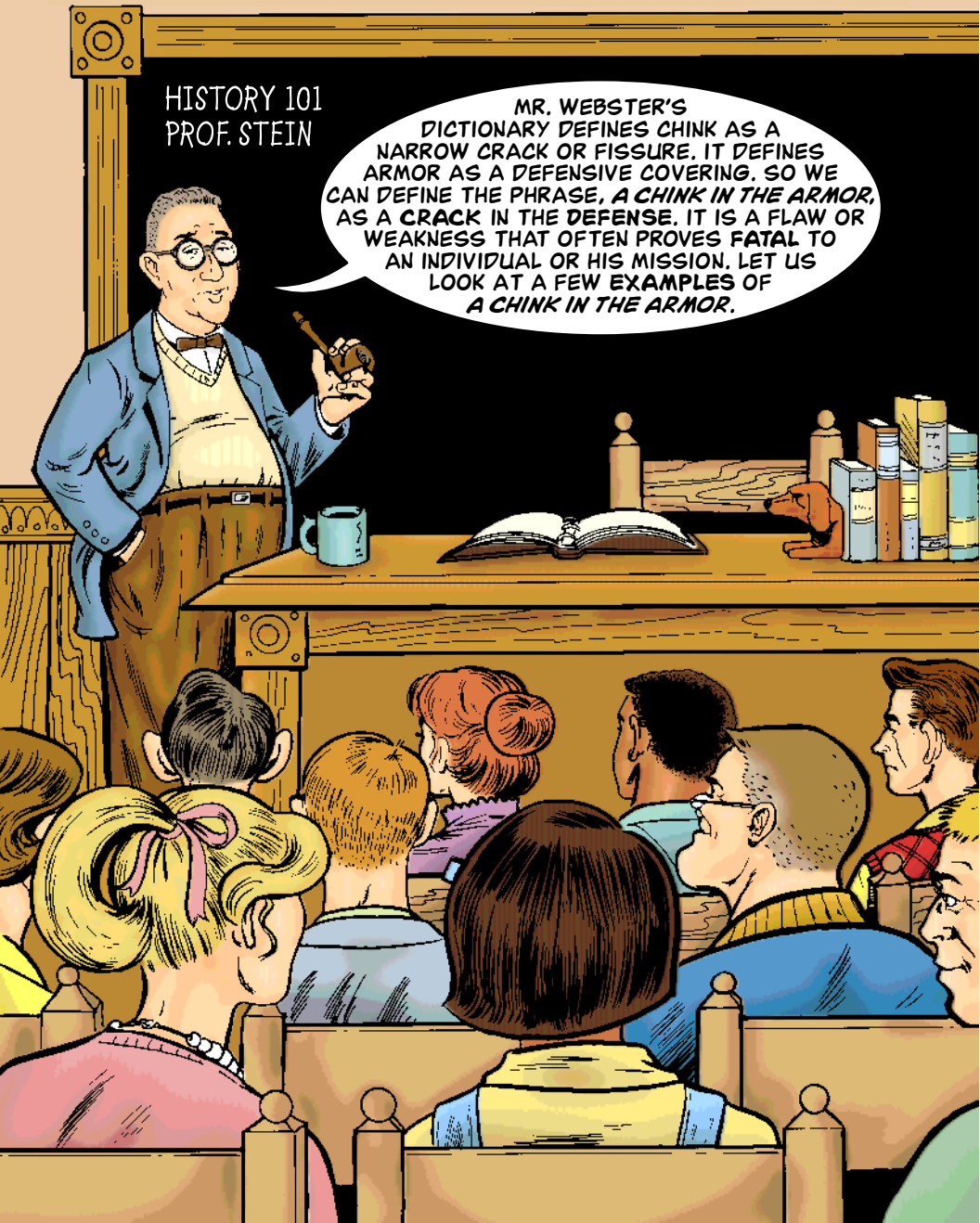
The filter elements for the vehicle's cab air system are under the operator's seat. Regardless of how dirty the worksite conditions are, the cab air system keeps air inside the cab clean

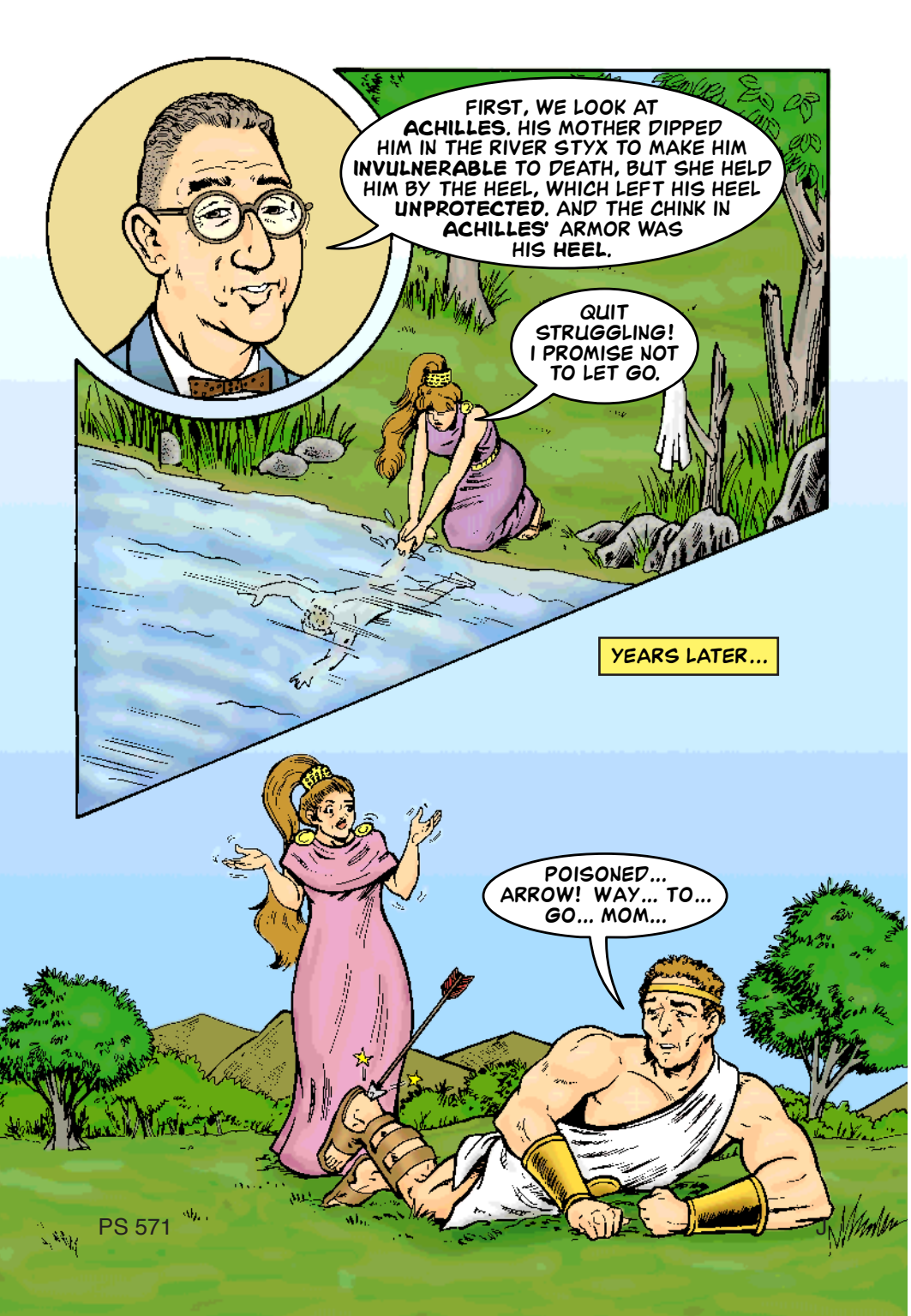
Keep any tools and chains, duffel bags, hats or gloves away from air inlets. They restrict the free flow of air to the filters. When there's a loss of air circulation inside the cab, eyeball the inlets for obstructions.

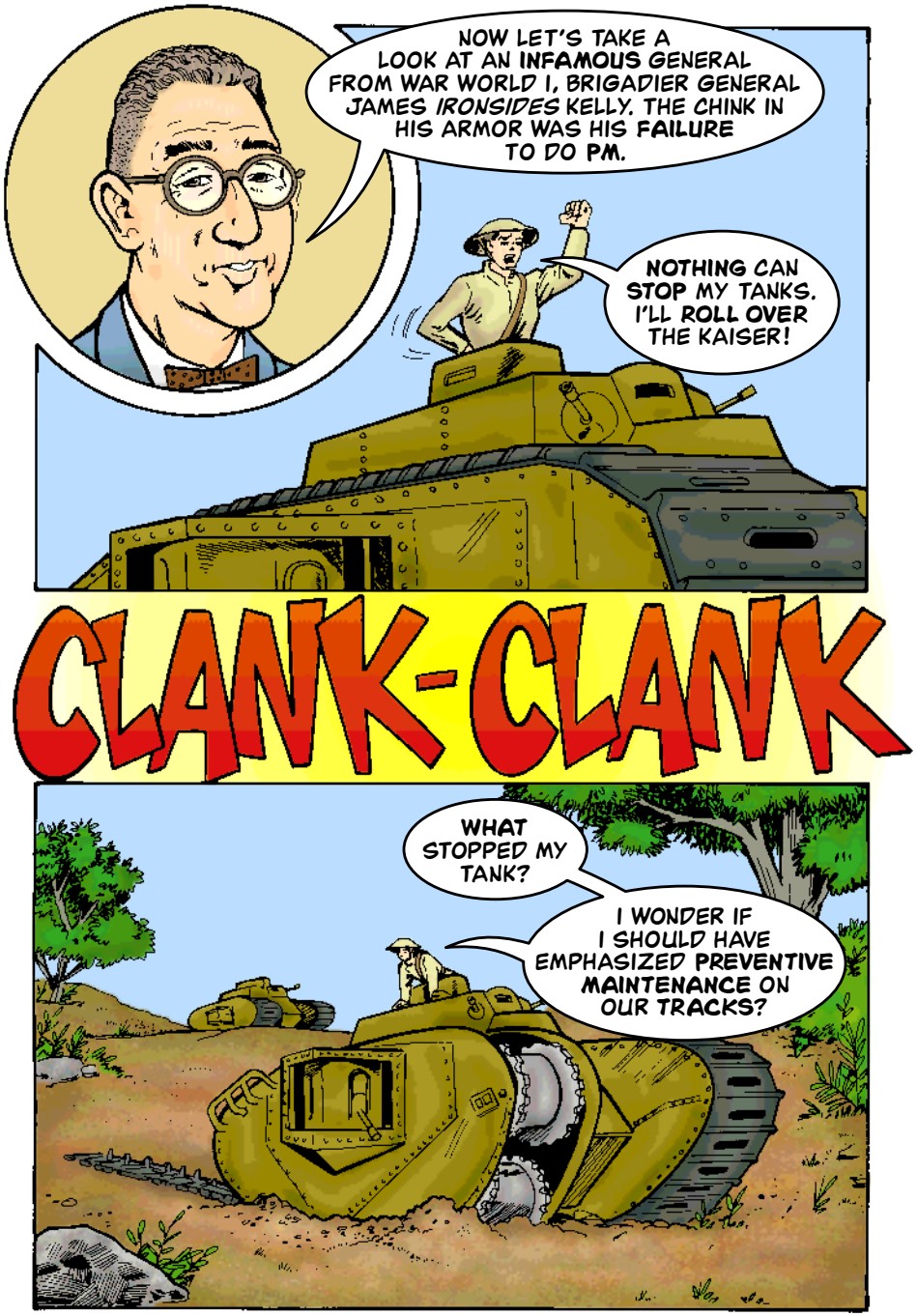


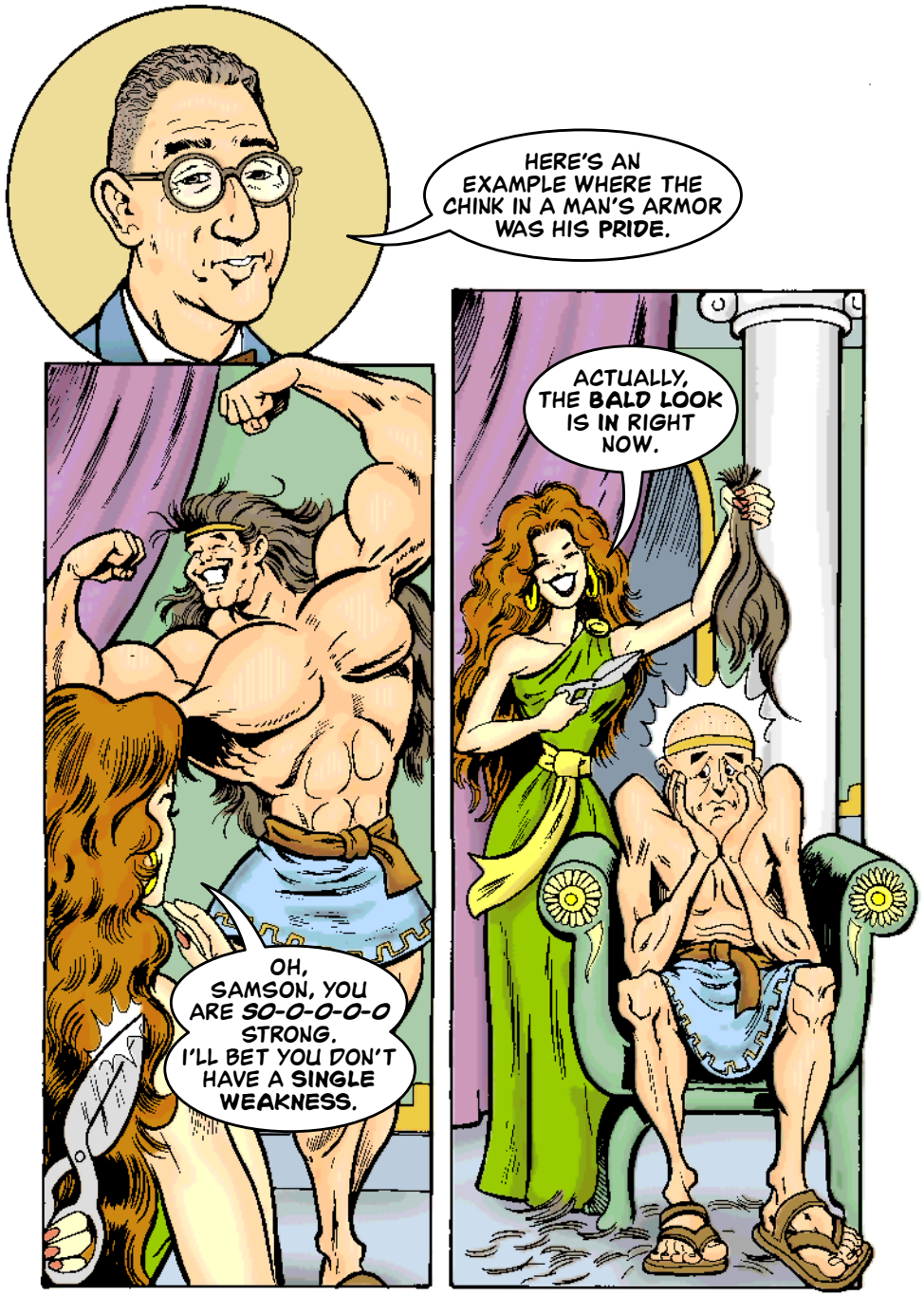


A CHINK in the ARMOR

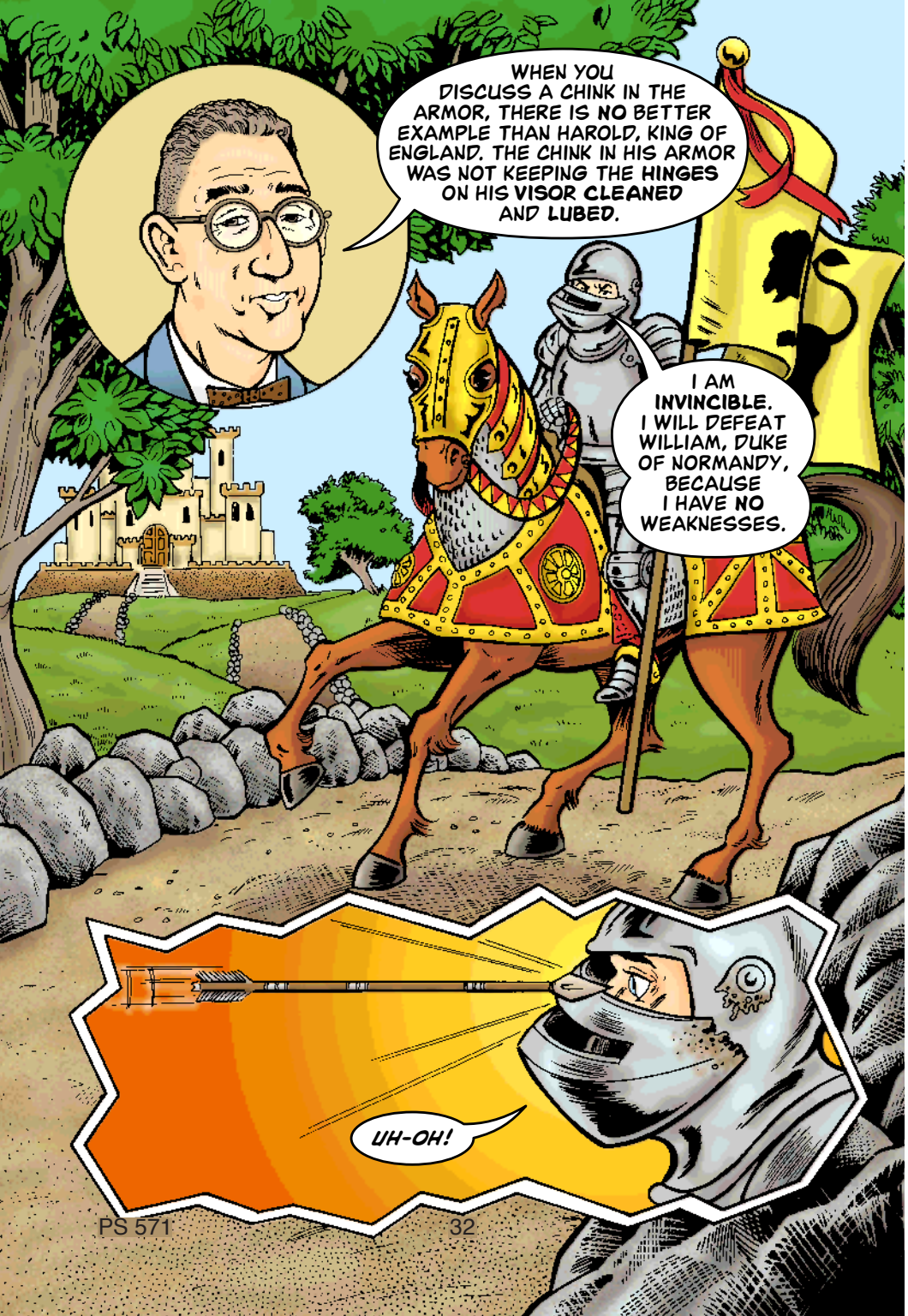


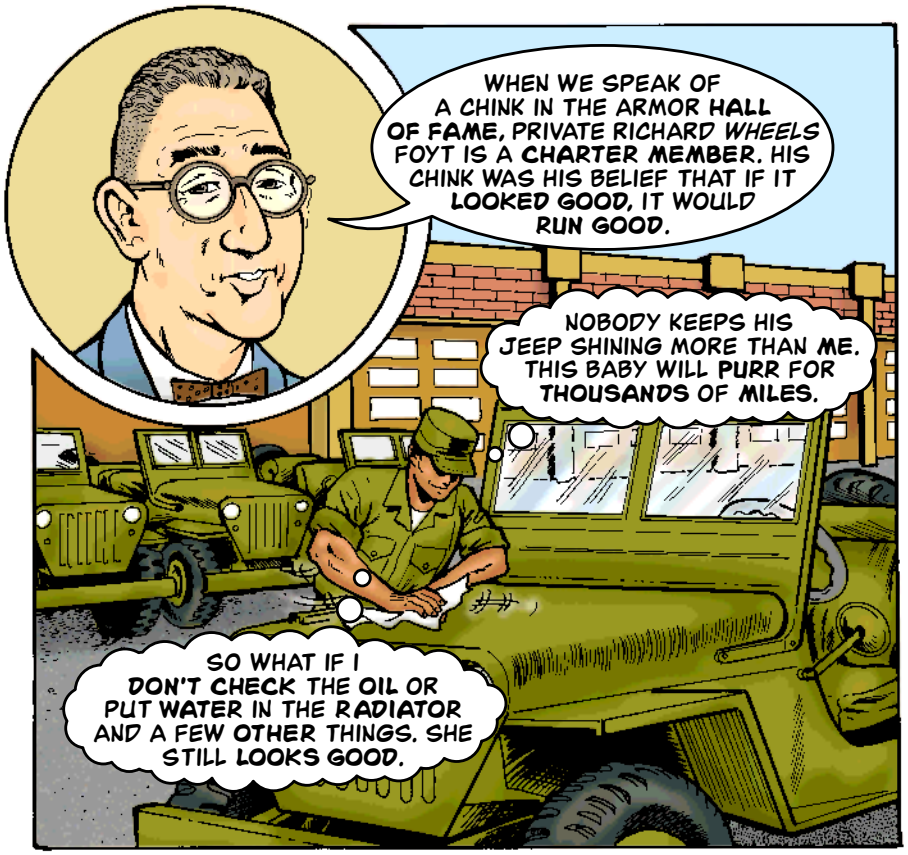

FIRST, WE LOOK AT ACHILLES. HIS MOTHER DIPPED HIM IN THE RIVER STYX TO MAKE HIM INVULNERABLE TO DEATH, BUT SHE HELD HIM BY THE HEEL, WHICH LEFT HIS HEEL UNPROTECTED. AND THE CHINK IN ACHILLES' ARMOR WAS HIS HEEL.
QUIT STRUGGLING! I PROMISE NOT TO LET GO.
YEARS LATER...
POISONED... ARROW! WAY... TO... GO... MOM...

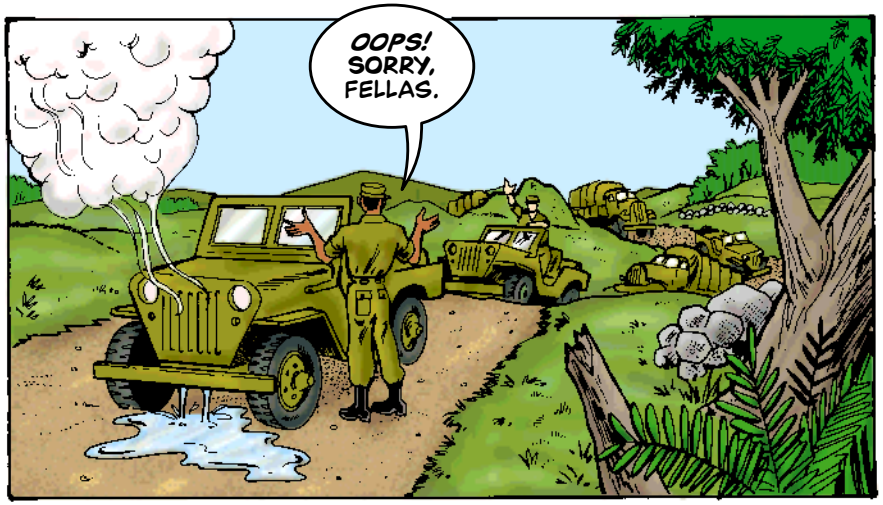

NOW LET'S TAKE A LOOK AT AN INFAMOUS GENERAL FROM WAR WORLD I, BRIGADIER GENERAL JAMES IRONSIDES KELLY. THE CHINK IN HIS ARMOR WAS HIS FAILURE TO DO PM.
NOTHING CAN STOP MY TANKS. I'LL ROLL OVER THE KAISER!
CLANK-CLANK
WHAT STOPPED MY TANK?
I WONDER IF I SHOULD HAVE EMPHASIZED PREVENTIVE MAINTENANCE ON OUR TRACKS?

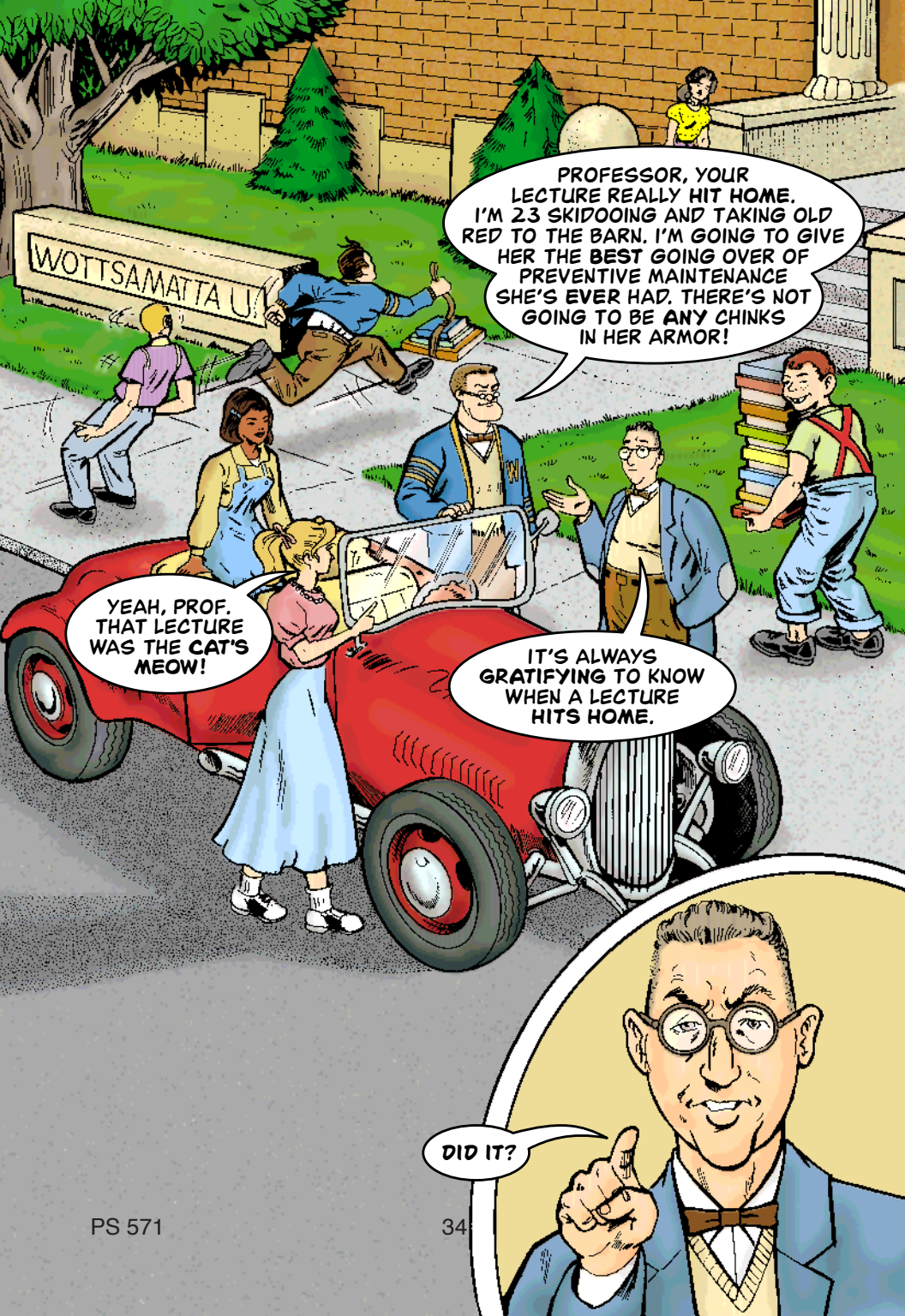

HERE'S AN EXAMPLE WHERE THE CHINK IN A MAN'S ARMOR WAS HIS PRIDE.
ACTUALLY, THE BALD LOOK IS IN RIGHT NOW.
OH, SAMSON, YOU ARE SO-O-O-O-O STRONG. I'LL BET YOU DON'T HAVE A SINGLE WEAKNESS.


NOW LET'S LOOK AT SERGEANT BILL CANVASBACK CONNORS. OLD CANVASBACK WAS IN CHARGE OF KEEPING UP THE MAINTENANCE ON HIS COMPANY'S TENTS. BUT THERE WAS A CHINK, OR PERHAPS WE SHOULD SAY HOLE, IN SERGEANT CONNORS' TENT PREVENTIVE MAINTENANCE.
THIS BEAUTIFUL SUNSHINE MAKES MY TENTS GLEAM LIKE THEY'RE BRAND NEW!
BUT NOW THAT IT'S RAINING...
...I SURE WISH I HAD PROMOTED PREVENTIVE MAINTENANCE. LOOKING GOOD AND DOING THE JOB ARE OFTEN TWO DIFFERENT THINGS.
GET HIM!
THERE HE GOES!


WHEN YOU DISCUSS A CHINK IN THE ARMOR, THERE IS NO BETTER EXAMPLE THAN HAROLD, KING OF ENGLAND. THE CHINK IN HIS ARMOR WAS NOT KEEPING THE HINGES ON HIS VISOR CLEANED AND LUBED.
I AM INVINCIBLE. I WILL DEFEAT WILLIAM, DUKE OF NORMANDY, BECAUSE I HAVE NO WEAKNESSES.
UH-OH!


WHEN WE SPEAK OF A CHINK IN THE ARMOR HALL OF FAME, PRIVATE RICHARD WHEELS FOYT IS A CHARTER MEMBER. HIS CHINK WAS HIS BELIEF THAT IF IT LOOKED GOOD, IT WOULD RUN GOOD.
NOBODY KEEPS HIS JEEP SHINING MORE THAN ME. THIS BABY WILL PURR FOR THOUSANDS OF MILES.
SO WHAT IF I DON'T CHECK THE OIL OR PUT WATER IN THE RADIATOR AND A FEW OTHER THINGS. SHE STILL LOOKS GOOD.


OOPS! SORRY, FELLAS.


WOTTSAMATTA U!
PROFESSOR, YOUR LECTURE REALLY HIT HOME. I'M 23 SKIDOOING AND TAKING OLD RED TO THE BARN. I'M GOING TO GIVE HER THE BEST GOING OVER OF PREVENTIVE MAINTENANCE SHE'S EVER HAD. THERE'S NOT GOING TO BE ANY CHINKS IN HER ARMOR!
YEAH, PROF. THAT LECTURE WAS THE CAT'S MEOW!
IT'S ALWAYS GRATIFYING TO KNOW WHEN A LECTURE HITS HOME.
DID IT?

OH-58D . . .

Keep the Sight Cool

OH-58 crews, if the turret on your Kiowa Warrior's mast-mounted sight (MMS) is getting sluggish, maybe the problem is old antifreeze.

The MMS turret is cooled with common automotive antifreeze. Over time, the additives in the stuff can form gummy deposits that block circulation and cause the turret to slow down or overheat.

The solution is to have your AVIM shop change the coolant now and after every 300 flight hours of operation.

All coolant changes require the use of the existing turret holding fixture, NSN 4920-01-231-8514; the thermal control unit (TCU) service unit, NSN 3460-01-346-1792; and the TCU power breakout box, NSN 4920-01-231-8512. Operation of the holding fixture, TCU service unit and TCU power breakout box are described in TM 9-4935-778-13&P.

Make a note until TM 9-1240-778-23 is updated.

Stay Off Your TOW's Toes

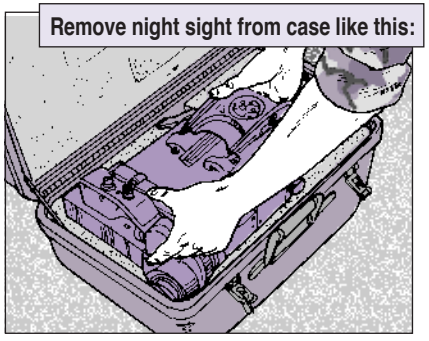
Your TOW 2 missile system will stand up to most action, but it has a few parts that are easily damaged by a misplaced foot or too much muscle.

Sights

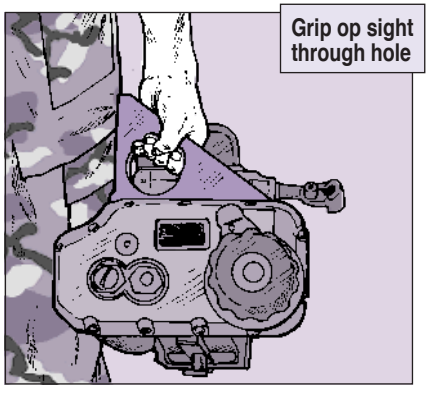
The best protection you can give the sights is to keep them in their cases when not in use and to tie them down for travel. Sights are usually damaged when they're just stuck in the back of a truck and left to bounce around.

Of course, getting the night sight in and out of its carrying case is not simple. If you grab something like a cable connector to lift the sight, the connector's wiring is ripped loose.

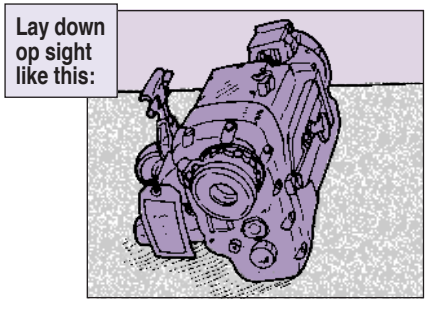
Use the locking bracket as a handle and put your other hand between the cooler and eyepiece. But once you get the sight out, cradle it with both hands. The bracket's not sturdy enough to be used as a carrying handle.



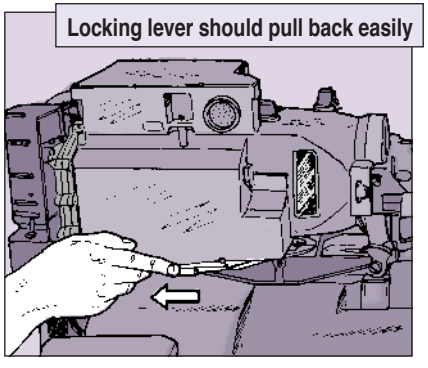
Same goes for the op sight handle. The best way to carry the op sight is to grip the hole in the latch assembly.



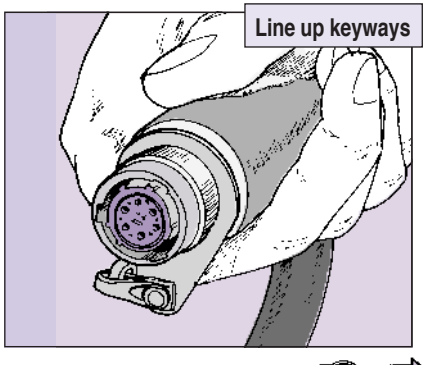
But don't lay the op sight down on its rails. That breaks the cam post and you won't be able to mount the night sight on top of the op sight. Lay the op sight down with the eyepiece off the ground.



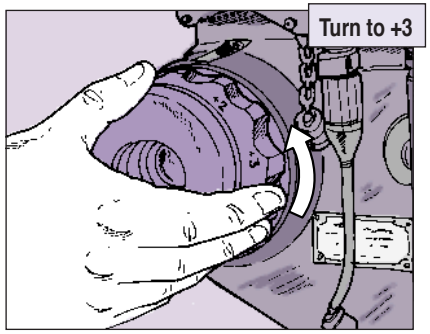
When you mount the night sight, the locking lever should pull back easily. If it doesn't, the night sight isn't positioned right. Adjust it and try again. If you force the locking lever, you break the cam post.



Be careful screwing in the cable to the J1 connector on the night sight. The connectors have keyways. If you don't line up the keyways, you bend the connector pins.

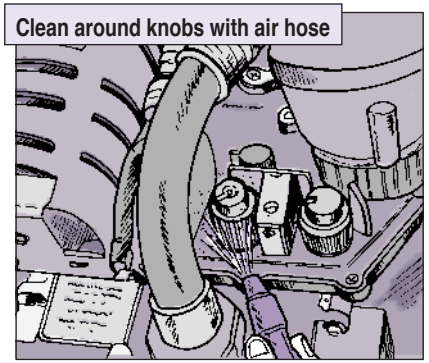


When you're not firing, turn the op sight eyepiece fully counterclockwise to the +3 position. If the eyepiece is



left at the **-3** position, it's resting against the prism. A bump to the sight can crack or misalign the prism.

Don't force the knobs on either sight. Too much muscle breaks the op sight AZIMUTH and ELEVATION knob stops and makes it hard to center them. Too much force also locks up the night sight AZIMUTH and ELEVATION knobs and bends the shaft to the RANGE FOCUS knob. If any of the sights' knobs are hard to turn, clean under them with 30 psi air.

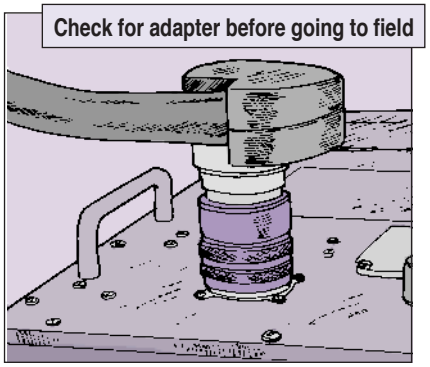


Unless you're in combat, never ride around with the sights mounted. If the tripod coupling clamp comes loose, those expensive sights could take a tumble onto the road. Plus the weight of the sights and the bouncing of the truck bend the boresight plate. Then you can't boresight.

MGS

Something you never want to mess up is the MGS cable. It costs thousands to replace. That's why there's the cable adapter, NSN 5935-01-117-3304. It protects the cable's pins.

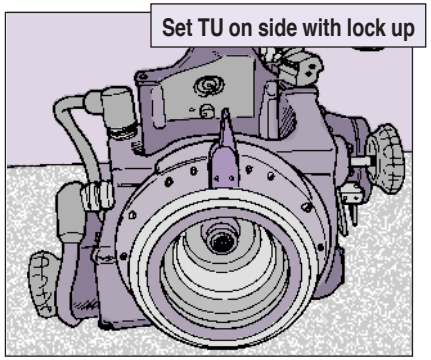
Make sure that the adapter's installed before you go to the field. If it's missing, tell your repairman. He'll get support to lock wire a new adapter to the cable's connector.



In the rain, keep the MGS covered as much as possible. MGSs aren't always waterproof. Moisture damages its circuitry.

Traversing Unit

Don't set the TU on its lock or cable. That breaks the lock or damages the cable's wiring. Set the TU on its side with the lock up.

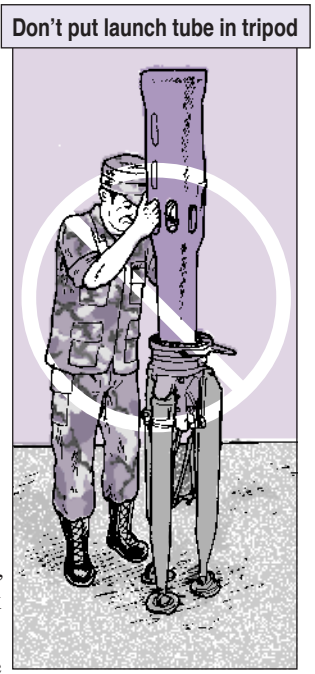


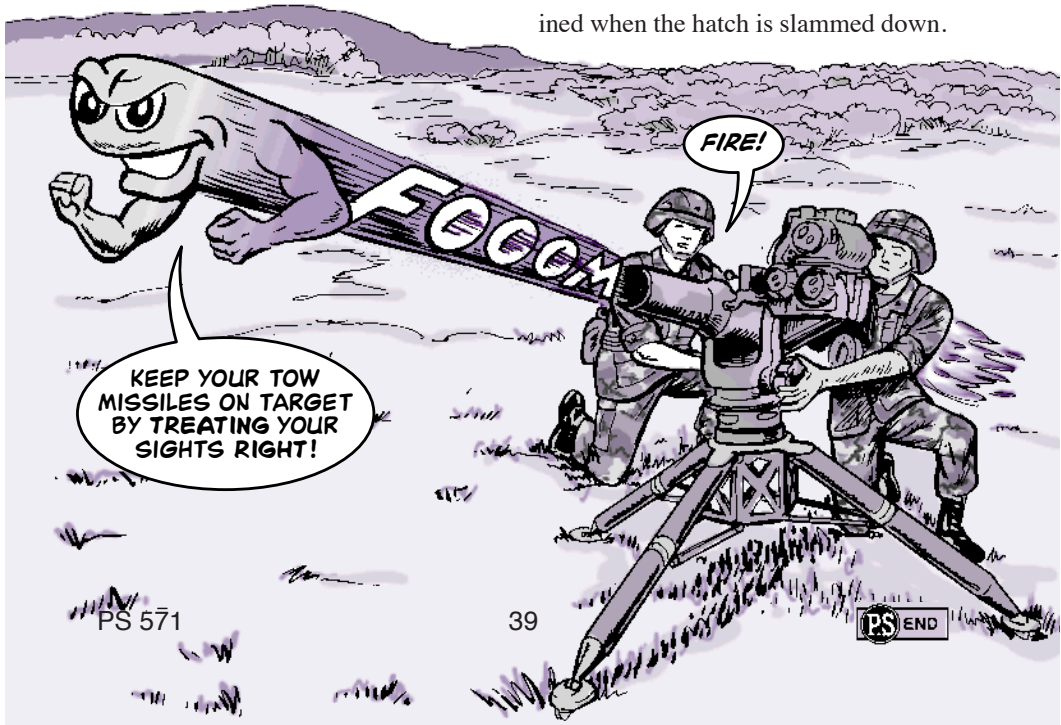
Launch Tube

Don't stick the launch tube down the center of the tripod for storage.

That can chew up the lip of the tube. A rough lip can cut the missile wire during firing. Suddenly, you have an unguided missile. Lay the tube on its side.

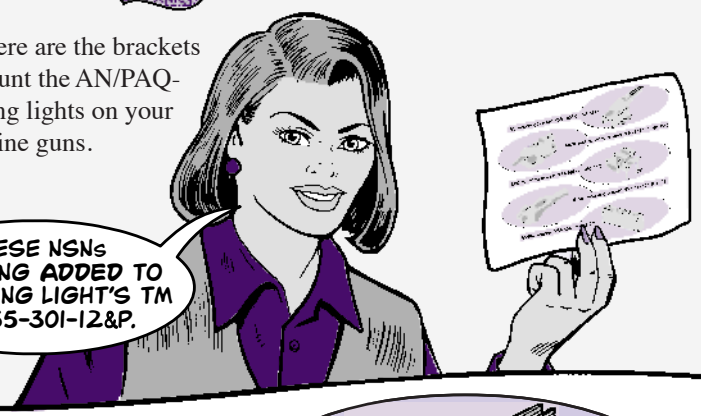
When you're using the TOW mounted on a HMMWV, don't pack cargo around the area where the launch tube is strapped in. The tube will be cracked and ruined when the hatch is slammed down.

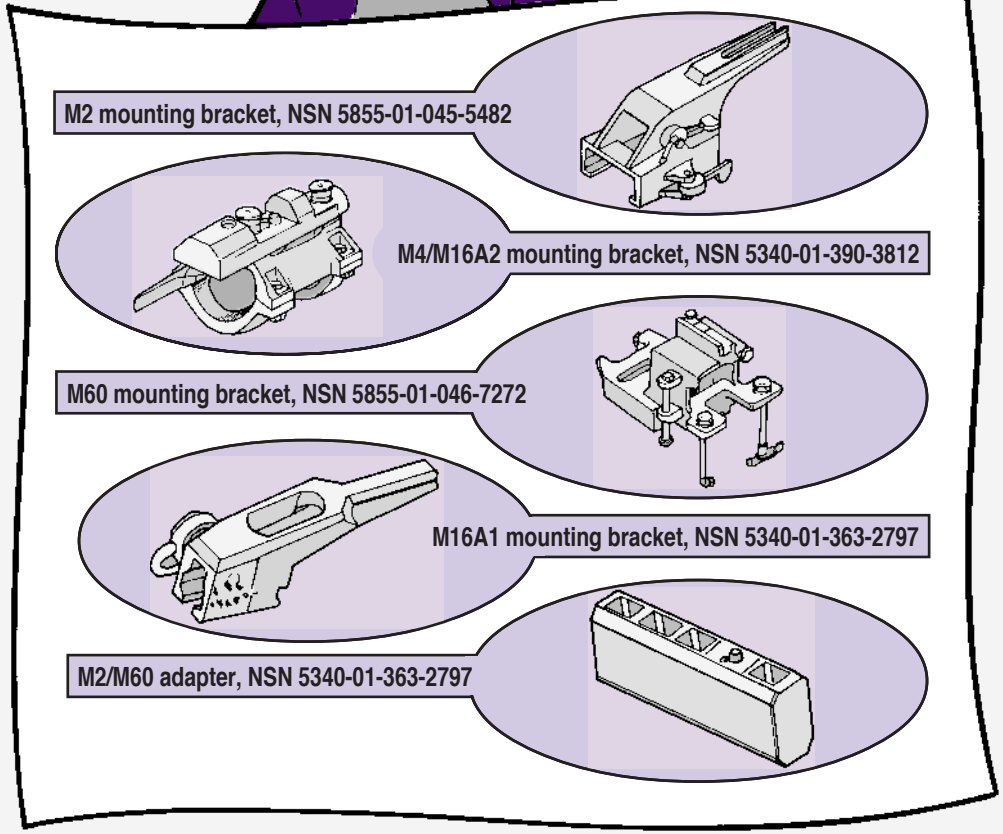




AN/PAQ-4 Brackets

Armorers, here are the brackets you need to mount the AN/PAQ-4B or -4C aiming lights on your rifles and machine guns.





Watch That Cap!

Dear Editor,

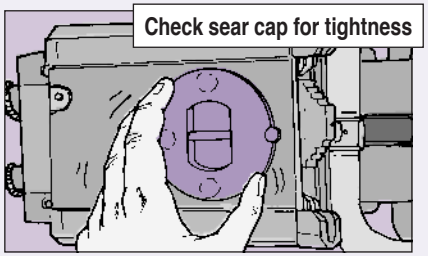
Every weapon system, no matter how strong, has an Achilles heel. For the MK 19, it's the sear housing cap. The plastic cap sits exposed on the bottom of the sear assembly.

If you set the MK 19 down too hard on concrete or bang it when you're mounting or dismounting it, the cap breaks. The cap also can work loose, come off and disappear. A broken or missing cap deadlines the MK 19. We had half our unit's MK 19s deadlined just because of the cap.

Armorers can save caps by teaching their gunners 3 rules:

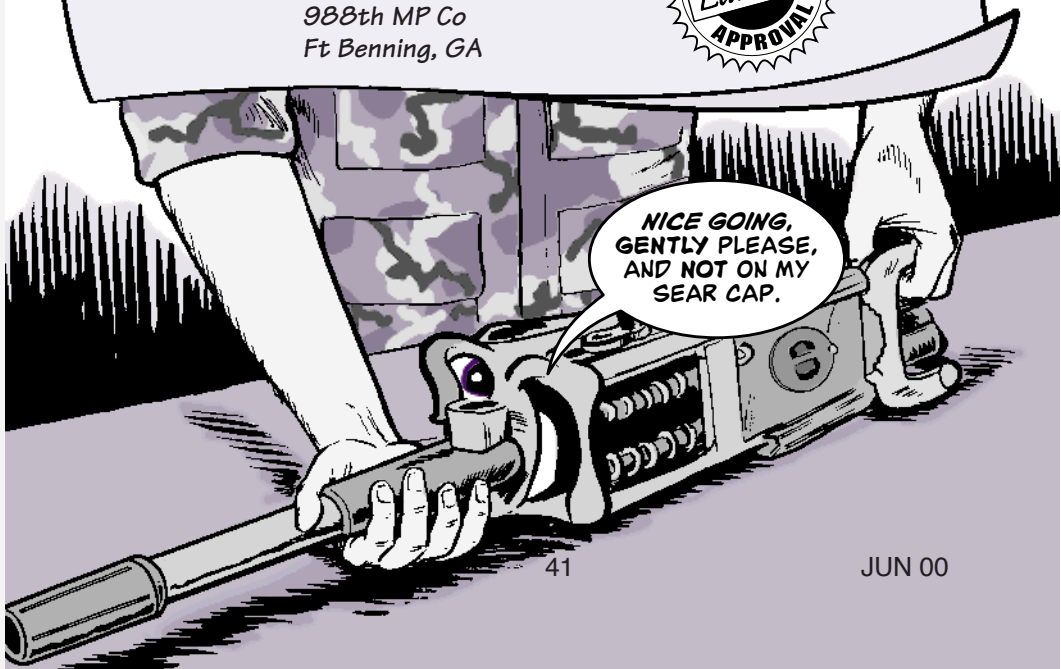
- *Check the tightness of the cap during the before-operations PMCS. Tighten it if necessary.*
- *Protect the cap during mounting and dismounting.*
- *Never set the MK 19 down on the cap.*

Give yourself readiness insurance by stocking a few extra caps, NSN 1010-01-129-1237. They cost only $4.



SEAL OF Editor's APPROVAL

2LT Kate J. Bielak
988th MP Co
Ft Benning, GA



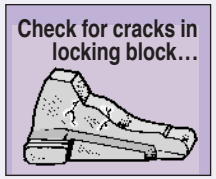
WATCH THE CRACKS, BUSTER

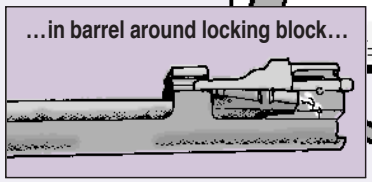
A few quick checks and regular cleaning will keep your M9 pistol packing a wallop.

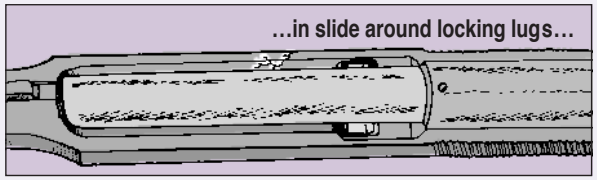
Cracks are the M9's worst enemy. A small crack in the wrong place can stop your pistol in its tracks. But to spot cracks, you've got to be able to see them. Wipe the pistol clean so that oil doesn't hide cracks.

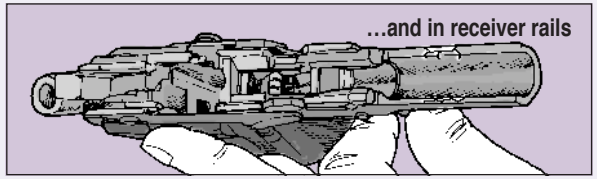
Look first at the locking block. That's where cracks and chips usually appear.

Then check the barrel in the area around the locking block. Then look at the slide, especially around the locking lugs. Finally, check the receiver rails for cracks and chips. If you spot any problems, tell your armorer.



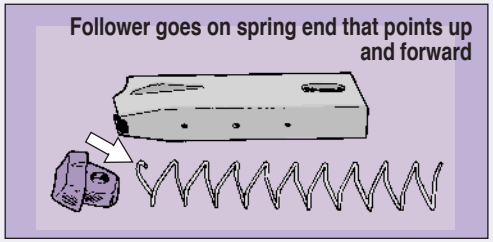






The magazine is often overlooked. If crud invades the magazine's insides, bullets have a hard time pushing their way out. Get rid of dirt by disassembling the magazine and giving its insides a good working over with a toothbrush.

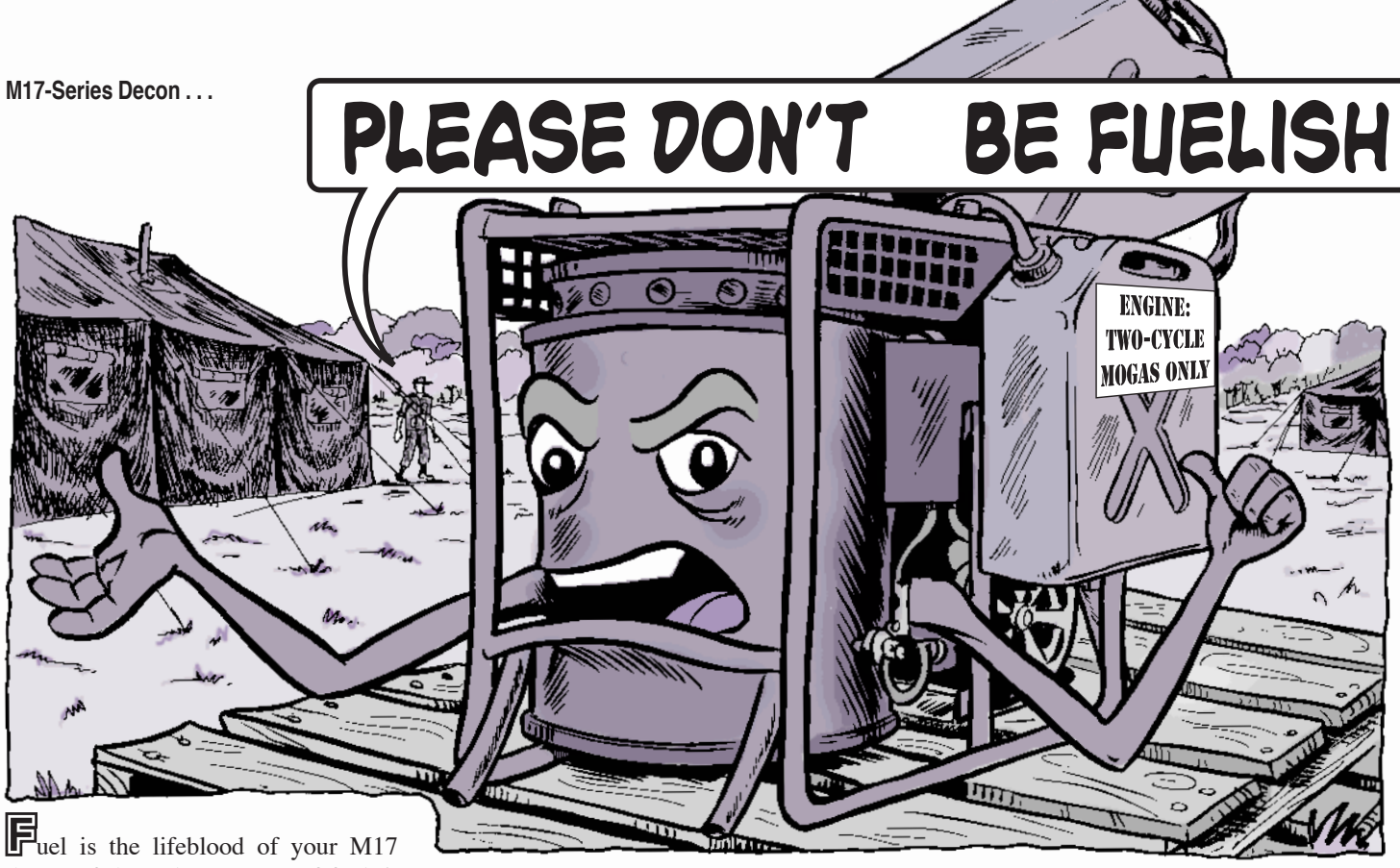
When you reassemble the magazine, remember that the follower goes on the spring end that points up and forward.



If you put it on the wrong end, bullets will hang up in the magazine.

Followers can get so worn they can't lock back the slide when the magazine's empty. So do a function test with an empty magazine. If the slide doesn't lock back, you may need a new slide stop or slide stop spring or a new magazine. Tell your armorer.

PLEASE DON'T BE FUELISH!

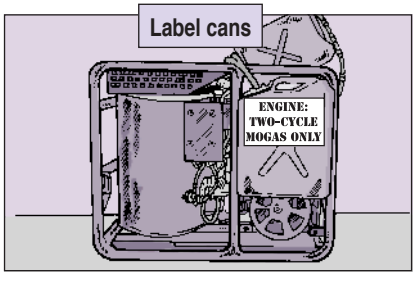


Fuel is the lifeblood of your M17 decon. If the M17 runs out of fuel, it won't run until you refuel. But if it has the wrong fuel, it may never run again.

So, if you remember nothing else, remember the M17 engine takes only MOGAS mixed with oil. Other fuels or MOGAS with no oil can ruin the engine.

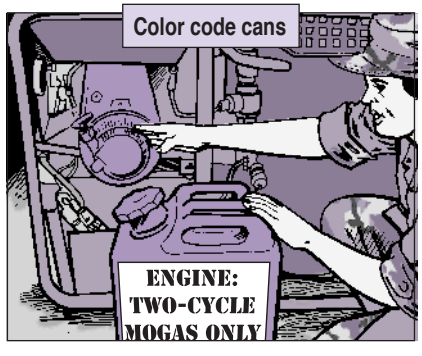
But that's not all. Different M17 models take different gas/oil mixtures. The older M17 and M17A1 that have not been upgraded with the Cuyana engines take 1 **quart** of two-cycle oil per 5 gallons of MOGAS. The M17A2 and M17A3 take 1 **pint** per 5 gallons.

How do you keep these fuel requirements straight if you have different M17 models of decon units in your outfit? First, paint ENGINE: TWO-CYCLE MOGAS ONLY on the fuel



cans for the engine. That's a good idea even if all your M17s are the same model.

Second, color-code all fuel cans. Almost all M17 and M17A1s have silver fan guards. Paint the tops of their cans silver or white. The M17A2 and M17A3 have black guards, so paint their can tops black. Operators know immediately which can they need.



If you're ever unsure if you've added oil to the MOGAS, use that fuel for the burner. It runs on any fuel.

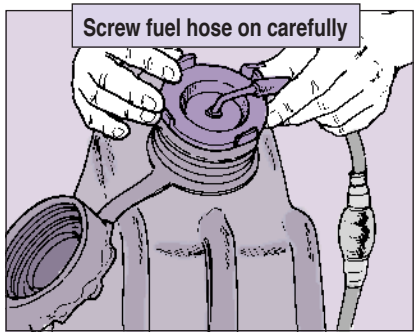
TM 3-4230-218-12&P says it's OK to substitute 30W oil for two-cycle oil **in an emergency**, such as when you're dealing with an actual chemical agent, but that's the only time. The 30W builds up carbon in the engine.

Fuel and oil will separate in the can if they sit very long. So before you put the fuel line in the can, shake the can to mix them again. Otherwise, the engine won't get lubed.

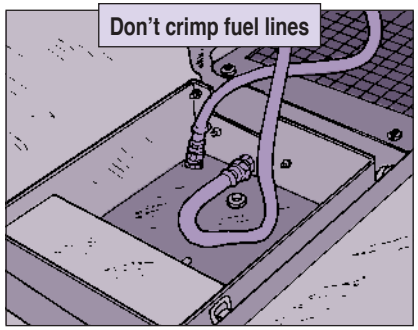
But shaking builds up pressure in the can, so unscrew the lid slowly to vent the can and make sure fuel doesn't spray everywhere.

PS MORE

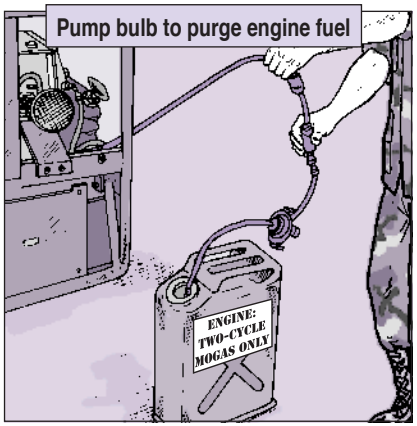
Fuel hose connections are metal, while fuel cans are plastic, so take it easy screwing in the fuel hose. If you force it, you can strip the threads and ruin the can. If the hose connector is hard to turn, reposition it and try again.



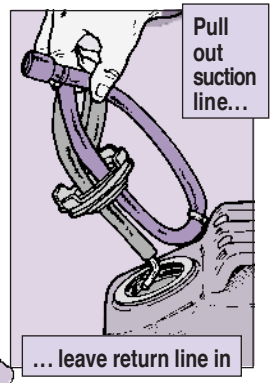
Be careful closing the cover for the burner fuel lines. If you crimp the lines, the burner won't start. Plus the cover's edge can cut the lines and they leak. If the heater won't start, make the fuel lines your first check.



At the end of operations, purge both the engine and burner to get rid of all remaining fuel. To purge the engine, shut it off and unscrew the fuel line from the can. Pull up the line so it can't draw more fuel. Then pump the bulb in the line until no more fuel comes out.

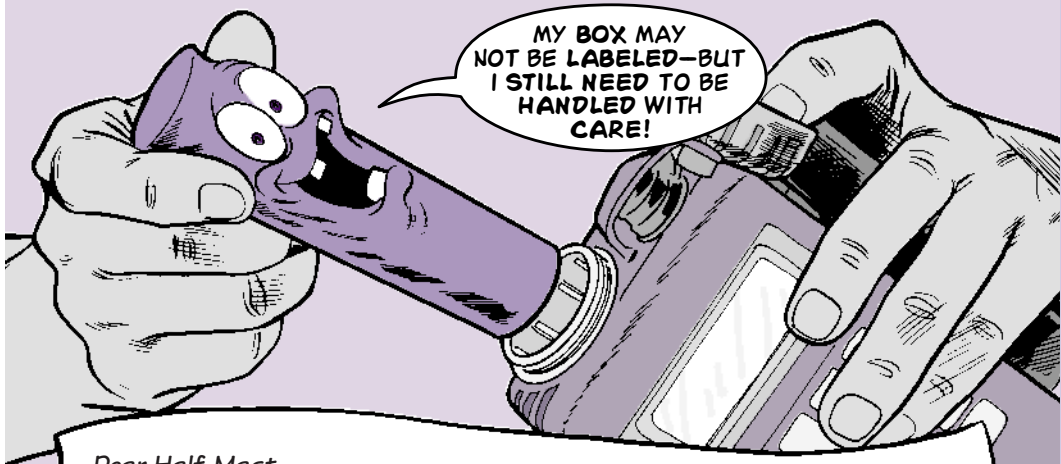


To purge the burner, pull the suction hose out of the fuel can, but leave the return line in the can. Run the engine until fuel stops coming out of the return line. Never take the return line out of the can before the engine is shut off—unless you want a high-pressure fuel shower.



PLGRs, CAMs . . .

New Battery Not Labeled

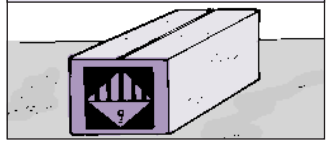


Dear Half-Mast,

We've been getting some new BA-5800A/U lithium-sulfur dioxide batteries for our PLGRs and chemical agent monitors (CAMs).

The shipping container for this new battery does not have the DOT Class 9 handling label on it like the old BA-5800/U container did.

Some batteries don't have Class 9 handling label



According to TB 43-0134, Battery Disposition and Disposal, the Class 9 label means the contents are hazardous material.

Does no label mean these batteries aren't hazardous? Does this change our disposal procedure?

SGT R. J. A.

Dear Sergeant R. J. A.,

The new BlueStar BA-5800A/U batteries are still hazardous and your storage, handling and disposal procedures have not changed.

The absence of a Class 9 label means this new battery passed tests that allow it to be shipped as non-dangerous goods. But, it still is hazardous material and must be treated as such when it reaches your shop.

Half-Mast

BEATING THE BATTERY BLUES

There's not much unit maintenance required on the SINCGARS' AN/CYZ-10 Automated Net Control Device (ANCD), but there is **some**. For instance, the batteries and battery compartment are your responsibility.

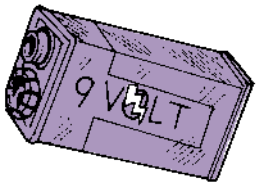
And let's face it, some of you are not taking that responsibility seriously. That's understandable. They're just batteries. There can't be much to it, right?

Wrong! There's a lot to know about battery maintenance on the ANCD. Here are a few things to get you moving down the learning trail.

Use the Right Batteries

The ANCD uses three 3-volt lithium batteries, BA-5123/U, NSN 6135-01-351-1131. Nothing on the battery identifies its BA number or NSN. In an emergency, a 9-volt lithium or alkaline can be used, but it will not last as long as the BA-5123/U's.

In a pinch, a 9-volt battery will do



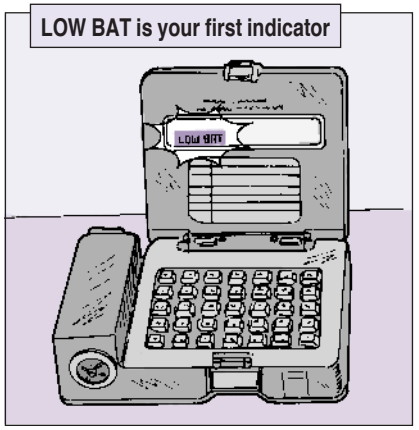
Never substitute look-alike batteries like the BA-5372/U for the BA-5123/U. The last guys who did that are buying new ANCDs to replace the ones that were destroyed by high heat.

Install Them Right

You can figure on replacing the batteries in a regularly used ANCD about every 30 days. The ANCD will tell you when your battery time is up.

First, you will get a low battery indicator message readout: LOW BAT. This message will be displayed continuously after a low battery is detected and will give you enough time, in most cases, to complete your current operation.

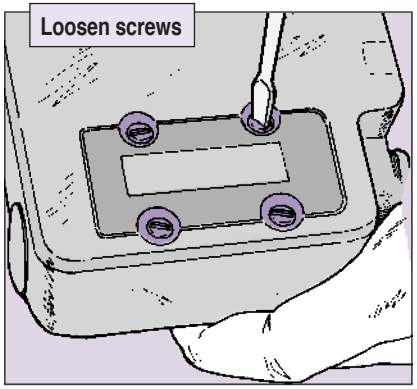
LOW BAT is your first indicator



When time has almost run out, the low voltage detector (LVD) will activate, sounding an alarm. You will have enough time to shut down the ANCD in an orderly and secure manner, but not much more.

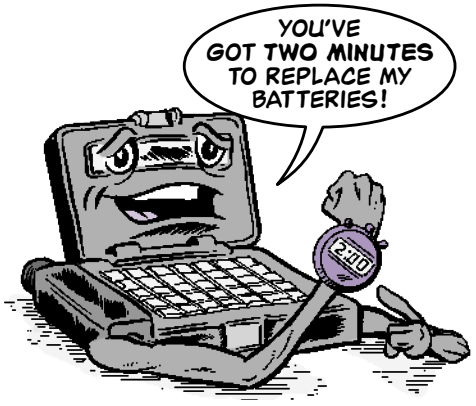
To replace batteries, first remove the battery cover, NSN 5810-01-347-9668, by loosening the four screws.

Loosen screws



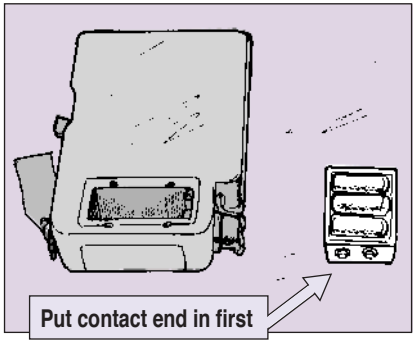
Carefully insert a flat-tip screwdriver under the extension lip and pry up the battery housing, NSN 5810-01-348-3147.

Once the battery housing is disconnected from the ANCD, you've got 2 minutes to replace the batteries and reconnect the battery housing. After 2 minutes, data is lost and the ANCD must be initialized again.



Don't try to save money on batteries; replace all three each time. Make sure the polarity is correct as you install each new battery. It's important to do it right the first time, because you might not have the time to do it a second time.

Put the housing back into the ANCD with the contacts going in the slot first. The housing will not fit if you put the non-contact end in first.



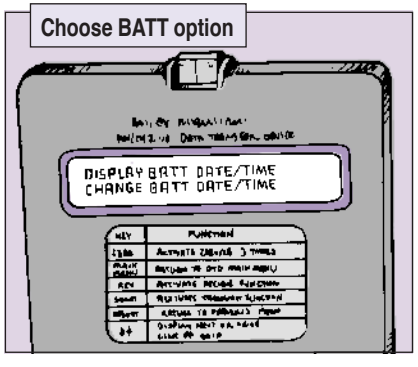
Tighten down the four battery cover screws, but don't overtighten them. You'll crack the cover if you do.

Turn on the ANCD to make sure the batteries are working.

Reset the Clock

Now go to the SETUP screen on the ANCD and choose the BATT option. The screen will show, **Display Batt Date/Time** and **Change Batt Date/Time**. Choose **Change Batt Date/Time**. Hit the ENTER key and the current date and time will automatically be entered as the date/time of the battery change.

If you're at this option only to check on the last installation date, make sure you don't hit ENTER on the **Change Batt Time/Date**. The ANCD will assume you have installed new batteries and enter the current date and time.



Good Contacts

As you install the battery housing, take a look at the positive and negative contacts on the ANCD. Are they loose? Any burn marks? Do the burn marks limit the electrical contact? Good electrical contact is a must.

Unit maintenance can replace both the negative contact, NSN 5810-01-350-8388, and the positive contact, NSN 5810-01-350-8387.

They will use a 1/16-in hex head screwdriver to remove the screws that hold the contacts. Then they will replace the contacts, making sure to get them in the right positions.

They will tighten the screws without overtightening or they could crack the case.

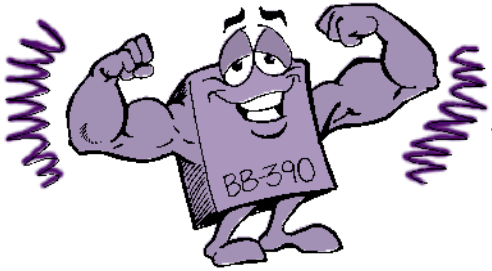
Tips from the Rechargeable Front

Dear Half-Mast,

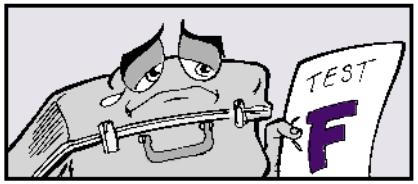
During our 6-month mission in Kosovo, we estimate the 3/504th Parachute Infantry Regiment saved more than a half million dollars by using rechargeable batteries instead of relying solely on lithium batteries.

Here are a few things we learned about rechargeable batteries that need to be considered before units deploy:

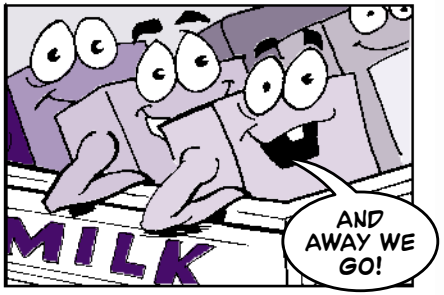
- *Make sure you replace all BB-390 and BB-388 batteries that cannot be charged to full capacity after 2 hours of uninterrupted charging (13.25 volts per section).*



- *Test all your chargers and adapters. Replace the bad ones. A good time to isolate both of these problems is during the training cycle preceding your deployment.*



- *Pack the batteries for transportation in milk-type crates to prevent damage.*

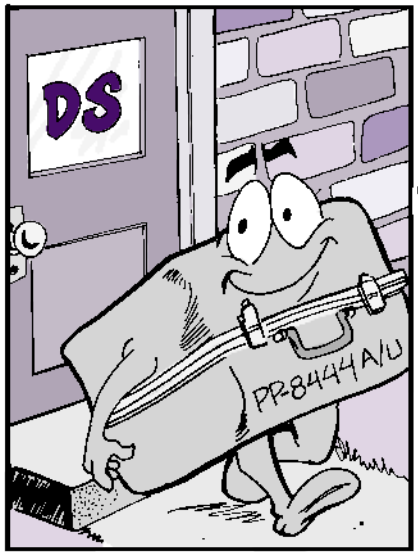


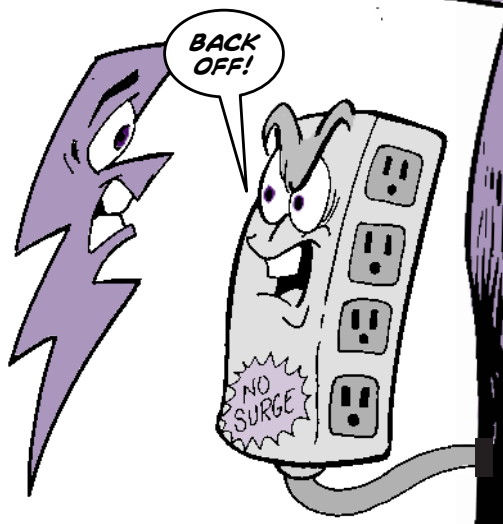
- *Pack enough portable radios, pre-charged rechargeable batteries, chargers and J-6518/U multistation adapters to establish your battalion level nets immediately upon arrival.*
- *Plan for the possibility that your only immediate power supply for recharging batteries might be using the PP-8444A/U charger connected to your vehicle. That means having enough J-6363, 24-volt vehicular cables, NSN 5940-01-427-9395, on hand to meet your needs.*

Convert all PP-8444/U chargers, NSN 6130-01-427-9604, to PP-8444A/U, NSN 6130-01-443-0970, by having your DS replace the power supply board or order a new charger.

The power supply board in the PP-8444/U operates on 90-125 volts AC. Since overseas you're going to run into 220-volt power, you'll need to use a voltage converter...and they don't work well with the chargers! In short order, the power supply board in your PP-8444/U will burn up.

The replacement power supply board in the PP-8444A/U operates on 100-250 volts AC, so you won't need that converter.





- *Bring high-capacity voltage surge protectors for all electronic systems including your chargers because you're going to encounter some major league voltage spiking.*

SFC Brook Reinhold
3/504th Para Inf Regt
Ft Bragg, NC

Dear Sergeant Reinhold,

Super job, Sergeant. You and the soldiers of the 3/504th get a well-deserved pat-on-the-back.

For more on rechargeable battery equipment and how to determine field requirements, see our March issue, PS 568.

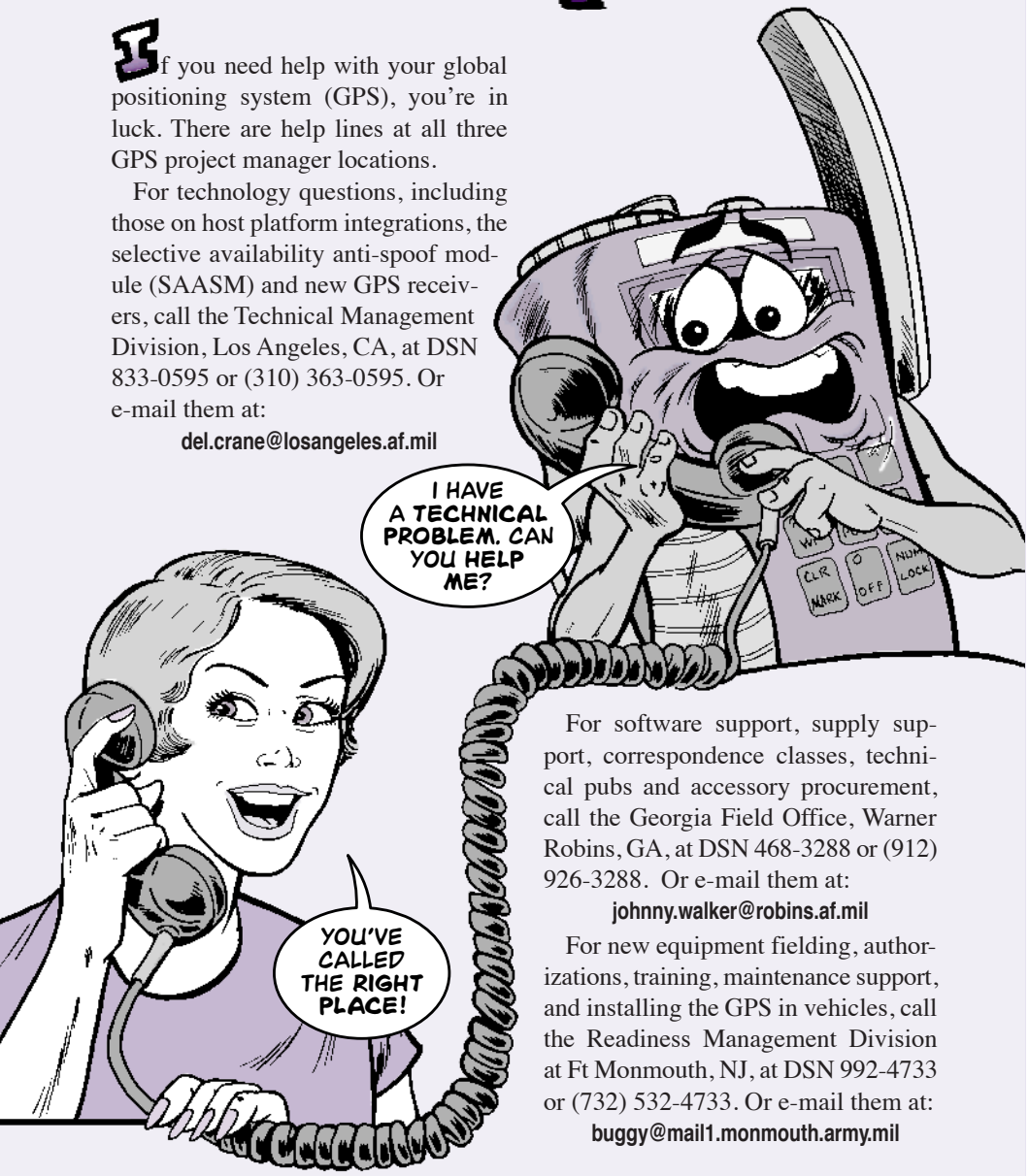
Half-Mast

GPS Help Lines

If you need help with your global positioning system (GPS), you're in luck. There are help lines at all three GPS project manager locations.

For technology questions, including those on host platform integrations, the selective availability anti-spoof module (SAASM) and new GPS receivers, call the Technical Management Division, Los Angeles, CA, at DSN 833-0595 or (310) 363-0595. Or e-mail them at:

del.crane@losangeles.af.mil



For software support, supply support, correspondence classes, technical pubs and accessory procurement, call the Georgia Field Office, Warner Robins, GA, at DSN 468-3288 or (912) 926-3288. Or e-mail them at:

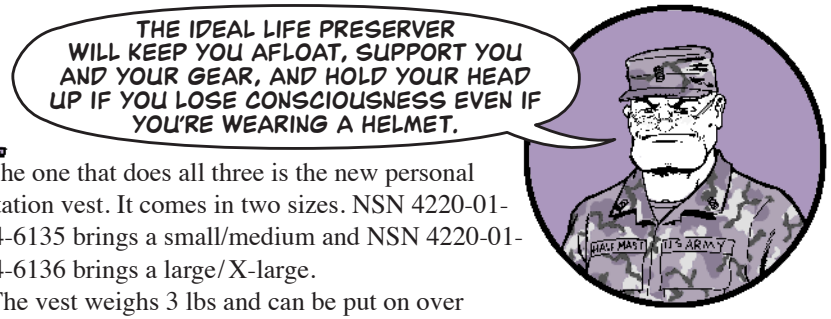
johnny.walker@robins.af.mil

For new equipment fielding, authorizations, training, maintenance support, and installing the GPS in vehicles, call the Readiness Management Division at Ft Monmouth, NJ, at DSN 992-4733 or (732) 532-4733. Or e-mail them at:

buggy@mail1.monmouth.army.mil

Flotation Vest . . .

Keepin' You Afloat



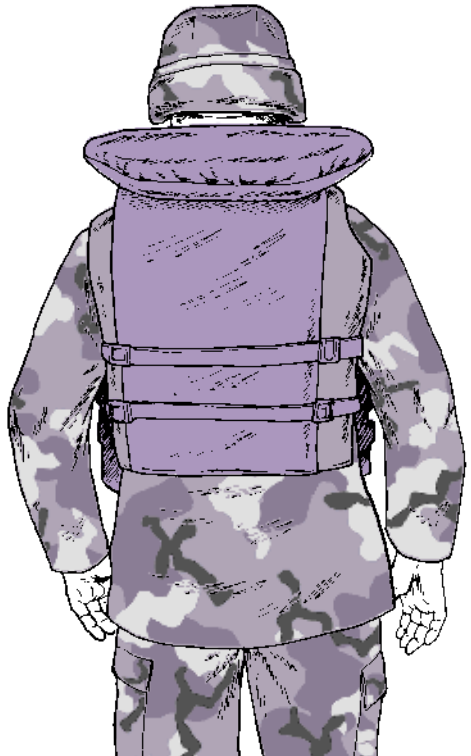
The one that does all three is the new personal flotation vest. It comes in two sizes. NSN 4220-01-454-6135 brings a small/medium and NSN 4220-01-454-6136 brings a large/X-large.

The vest weighs 3 lbs and can be put on over the Kevlar vest and load-bearing equipment.

Maintenance

Hose the vest down with fresh water after use, especially if it has been exposed to salt water. Never use soap, detergent, or any chemicals like dry cleaning solvent to clean it. Salt water and cleaners can damage the fabric.

Air dry the vest completely before storing it. This reduces the growth of mold or fungus. Never put it in a dryer. Heat will shorten the vest's life.



Equipment Belt . . .

Extenders End Frustration

Frustration is a pistol belt that doesn't fit over protective outerwear. Some soldiers get so frustrated that they go to the local military equipment store and buy their own.

Don't do that! Equipment belt extenders are now in the supply system.

There are two types of extenders. NSN 8465-01-457-8969 fits the side release equipment belt. NSN 8465-01-457-8980 is used on center release equipment belts.

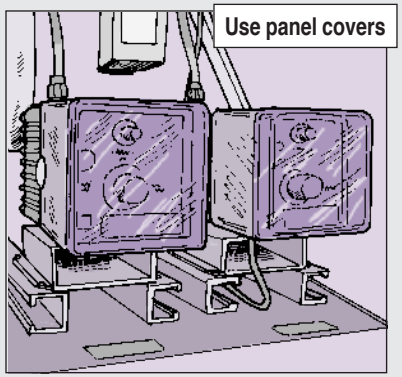
Both of the 4-in extenders mate to either of the standard pistol belt's quick-release buckles.

If your Central Issue Facility doesn't have them, your unit can order them.

Reverse Osmosis Water Purification Unit . . .

Protect Panel Covers

Operators, try a little TLC when you stow your 3000-GPH trailer-mounted ROWPU's hard-rubber discharge hoses for travel.



That TLC can save selector knobs, knob stems, breathers, connecters and sight glasses from damage and replacement.

If you can't be gentle, be careful. Careful or careless, you're better off by installing the protective panel cover that's been added to Fig 56 of TM 10-4610-232-24P. Order the cover on a DD Form 1348-6 with CAGE 62866 and PN 10583 from RIC S9C.

Strapping and Sealing Kits . . .

Seal in These Fresh NSNs

Kit, NSN 3540-00-565-6240

Item	NSN	Qty
Sealer	3540-00-223-8855	1
Stretcher	3540-00-278-1250	1
Box	3540-00-897-5516*	1
Seals, 3/8 inch	8135-00-239-5285	5,000
Strapping, 3/8 inch	8135-00-283-0664	100-lb coil

Kit, NSN 3540-00-565-6241

Item	NSN	Qty
Sealer	3540-00-234-6741	1
Stretcher	3540-00-278-1250	1
Box	3540-00-897-5516*	1
Seals, 1/2 inch	8135-00-239-5308	5,000
Strapping, 1/2 inch	8135-00-283-0666	100-lb coil

Kit, NSN 3540-00-565-6242

Item	NSN	Qty
Sealer	3540-00-234-6742	1
Stretcher	3540-00-278-1250	1
Box	3540-00-897-5516*	1
Seals, 5/8 inch	8135-00-290-1086	5,000
Strapping, 5/8 inch	8135-00-283-0667	100-lb coil

Kit, NSN 3540-00-565-6243

Item	NSN	Qty
Sealer	3540-00-234-6743	1
Stretcher	3540-00-278-1250	1
Box	3540-00-897-5516*	1
Seals, 3/4 inch	8135-00-239-5285	5,000
Strapping, 3/4 inch	8135-00-283-0668	100-lb coil

Kit, NSN 3540-00-565-6244

Item	NSN	Qty
Sealer	3540-00-223-8592	1
Stretcher	3540-00-278-1251	1
Cutter	5110-00-223-6281	1
Box	3540-00-897-8117*	1
Seals, 1 1/4 inch	8135-00-239-5294	1,000
Strapping, 1 1/4 inch	8135-00-283-0671	100-lb coil

** These boxes are local purchase items.*

Supply Excellence Awards for FY 1999

ACTIVE ARMY

MTOE CO W/PROPERTY BOOK

Winner: HHC, 501st MI Bde, Korea
Runner-up: 408th Sig Co, Ft Wainwright, AK

MTOE CO W/O PROPERTY BOOK

Winner: 72d Ord Co, Korea
Runner-up: HHD, 504th MP Bn, Ft Lewis, WA

MTOE BN W/PROPERTY BOOK

Winner: 41st Sig Bn, Korea
Runner-up: 532d MI Bn, Korea
Honorable Mention: 78th Sig Bn, Korea

MTOE BN W/O PROPERTY BOOK

Winner: 725th MSB, 25th Inf Div (L), Schofield Barracks, HI
Runner-up: 6th Bn, 101st Avn Regt, Ft Campbell, KY

TDA (SMALL)

Winner: US Army Garrison, III Corps and Ft Hood, Ft Hood, TX
Runner-Up: C Trp, 5th Sqdn, 15th Cav Regt, Ft Knox, KY
Honorable Mention: Avn Tech Test Cen, Ft Rucker, AL

TDA (LARGE)

Winner: US Army Maintenance Activity-Mannheim, 21st Theater SUPCOM, Germany
Runner-up: US Army Material Support Center-Korea
Honorable Mention: RRAD, Texarkana, TX
Honorable Mention: 2/2nd FA, Ft Sill, OK

DSU (SMALL)

Winner: C Co, 25th Avn Regt, 25th Inf Div (L), Wheeler Army Airfield, HI
Runner-up: 80th Area Support Group, Belgium
Honorable Mention: C Co, 52d Avn Bn, Korea

DSU (MEDIUM)

Winner: C Co, 801st MSB, Ft Campbell, KY
Runner-up: 22d Area Support Group, Vincenza, Italy

DSU (LARGE)

Winner: 725th MSB, 25th Inf Div (L), Schofield Barracks, HI
Runner-up: 701st MSB, 1st Inf Div, Germany

ARMY RESERVE

MTOE CO W/PROPERTY BOOK

Winner: 824th Trans Co (Heavy Boat), Morehead City, NC
Runner-up: 912th Med Co, Independence, MO

MTOE CO W/O PROPERTY BOOK

Winner: A Co, 411th Engr Bn, Maui, HI
Runner-up: 1932nd Med Team, Independence, MO
Honorable Mention: 499th QM Co, Richmond, VA
Honorable Mention: 317th Support Center, Wiesbaden, Germany

BN W/PROPERTY BOOK

Winner: 94th Gen Hosp, Seagoville, TX
Runner-up: 389th Engr Bn (Combat), Dubuque, IA

BN W/O PROPERTY BOOK

Winner: 489th Civil Affairs Bn, Knoxville, TN
Runner-up: 317th QM Bn, Lawrence, KS

TDA (SMALL)

Winner: HHD, 1189th Trans Terminal Bde, N. Charleston, SC
Runner-up: MI Gp, Heidelberg, Germany

TDA (LARGE)

Winner: Equipment Concentration Site # 33 Ft Riley, KS
Runner-up: 1984th US Army Hospital, Ft Wainwright, AK

ARMY NATIONAL GUARD

MTOE CO W/ PROPERTY BOOK

Winner: B Co, 118th Med Bn, Waukesha, WI
Runner-up: HHB, 113th FA Bde, Greensboro, NC

MTOE CO W/O PROPERTY BOOK

Winner: HHSB, 1/487th FA Bn, Wahiawa, HI
Runner-up: 43d Army Band, Lincoln, NE
Honorable Mention: A Co, 29th Support Bn, Honolulu, HI

MTOE BN W/ PROPERTY BOOK

Winner: 130th Engr Bn, Vega Baja, PR
Runner-up: 210th Finance Bn, Jackson, MS

MTOE BN W/O PROPERTY BOOK

Winner: 1/167th Cav Sqdn, Lincoln, NE
Runner-up: 1/120th FA Bn, Wisconsin Rapids, WI

TDA (SMALL)

Winner: 90th Trp Cmd, Oklahoma City, OK

TDA (LARGE)

Winner: Maneuver Tng Cen, Camp Grayling, MI
Runner-up: HQ State Area Command (STARC), Jackson, MS

DSU (SMALL)

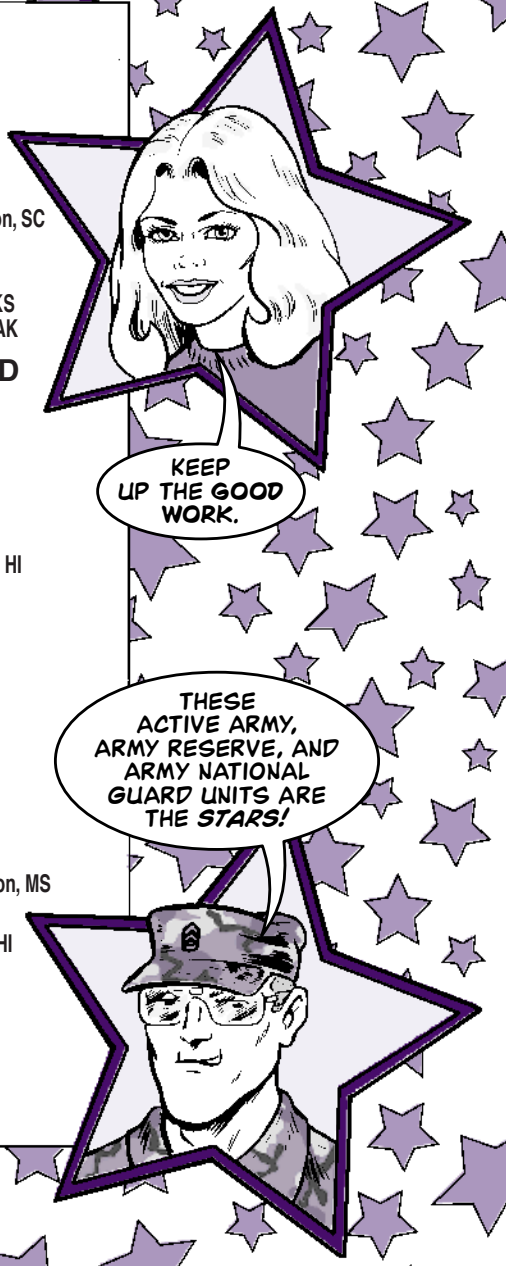
Winner: B Co, 193d Avn Regt, Wheeler Army Airfield, HI

DSU (MEDIUM)

Winner: USPFO-NE, Lincoln, NE
Runner-up: USPFO-WV, Buckhannon, WV

DSU (LARGE)

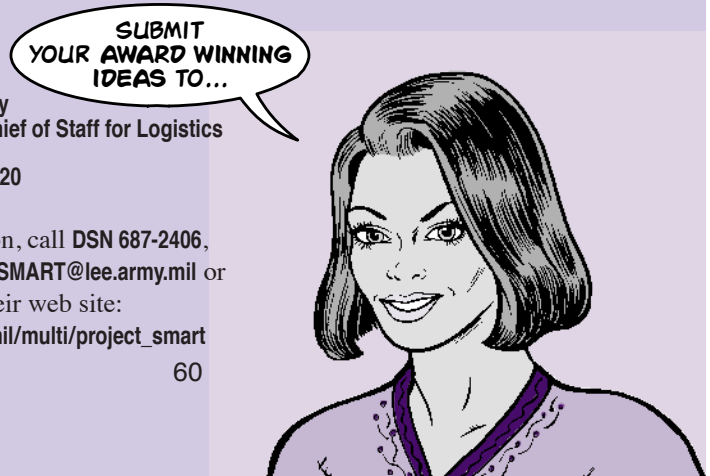
Winner: USPFO-LA, Alexandria, LA
Runner-up: USPFO-TX, Austin, TX



Being SMART Pays

Submitting suggestions to the Supply and Maintenance Assessment and Review Team (SMART) is smart. Here's a list of recent suggestors, their ideas and the recommended amount of each award.

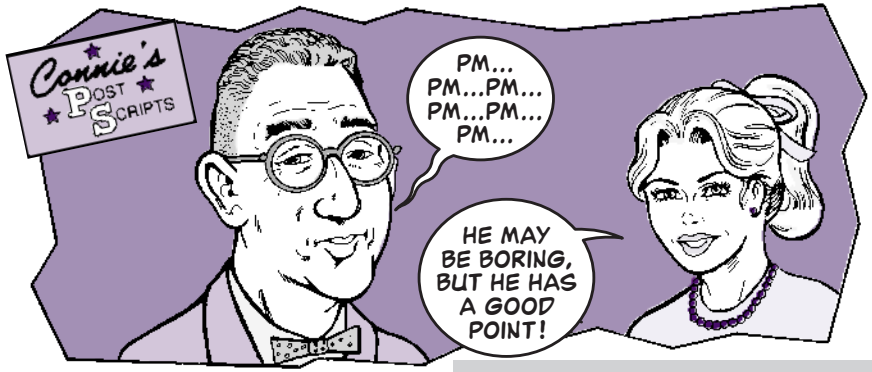
Name	Suggestion	Recommended award
CW2 Matthew Young Ft Campbell, KY	How to prevent damage on FMTV rear taillights	$500
SFC Raymond Larry Ft Hood, TX	Design a supply catalog or TM which uses a hand receipt format	$500
SSG Lewis Hood AL ARNG	Replace red light filters in CH-47D AFCS control panel instead of replacing entire panel	$2,500
John Burgo Brockton, MA	Relocate AOAP valve on new M35A3 2½-ton truck to prevent injuries	$500
WO1 William Scott Germany	Save money by using M939-series tractor axle breathers on M1070 HET	$500
CW2 Todd Simmons Ft Bragg, NC	Modify broken studs on LMTV/FMTV generator rather than order a new generator	$500
Shon Gillett New Castle, PA	Add small nipple stem for M939A2-series truck wheel inflation assembly to TM 9-2320-272-24P-1	$500
SSG Robert Engstrom Ft Drum, NY	Add grease fitting to the cab tilt cylinder pivots on FMTVs	$500



Department of the Army
Office of the Deputy Chief of Staff for Logistics
Project SMART/TIPS
3901 A Avenue, Suite 220
Ft Lee, VA 23801-1809

For more information, call **DSN 687-2406**, **(804) 734-2406**, E-mail: **SMART@lee.army.mil** or submit your idea at their web site:

www.cascom.army.mil/multi/project_smart



ASIP SINCGARS Battery Option

NSN 6130-01-462-4442 brings a hold-up battery insert that holds four AA alkaline batteries, NSN 6135-01-214-6441. AA batteries give you an alternative power source to the BA-5590 battery to maintain fill data in your advanced system improvement program (ASIP) SINCGARS radio.

MK 19 Mount MWO

All MK 19 machine gun mounts should now have MWO 9-1010-231-30-2 applied. This MWO modifies M64 mounts by adding a universal pintle adapter, ammo bracket hand knobs, and a catch bag/frame assembly. If your M64s were missed, tell your MWO coordinator. He will contact TACOM-Rock Island's Cynthia Dochterman at (309) 782-0371, DSN 793-0371, or e-mail: dochtermanc@ria.army.mil

FMTV Breaker Correction

Page 8 of PS 561 (Aug 99) incorrectly stated that circuit breaker (CB) 35 is not used in FMTV trucks. In fact, CB35 must be used on all FMTVs equipped with WTEC II electronic transmission controls. FMTVs equipped with WTEC III controls do not use CB35, however. The chart matching circuit breakers to circuits on Page 9 of PS 561 is correct.

Remote ASIP SINCGARS

Remote your advanced system improvement program (ASIP) SINCGARS RT-1523(C)E by using the two-wire binding post adapter, NSN 5935-01-462-6624. When supplies of that adapter are exhausted, a new binding post adapter, NSN 5935-01-463-8290, will be issued. The radio's new base stand, NSN 5340-01-463-9002, has room for the adapter.

ASIP SINCGARS Locking Bar

Is the advanced system improvement program (ASIP) SINCGARS RT-1523(C)E locking bar letting you down? If so, modify it to make it stronger. Follow the instructions at web site: www.monmouth.army.mil/peoc3s/trcs/garspsp.htm If you don't have Internet access, contact CECOM at DSN 992-5015 or (732) 532-5015. Or e-mail them at: welsch@mail1.monmouth.army.mil They will fax or e-mail the instructions to you. A better locking bar, NSN 5340-01-456-7985, will be available later this year.

DISTRIBUTION: To be distributed in accordance with the initial distribution number (IDN) 340312, requirements for TB 43-PS-Series.

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

When You Fill Out an Oil Analysis Request, DD Form 2026...