

Issue 483

PS

February  
1993

# THE PREVENTIVE MAINTENANCE MONTHLY

TB 43-PS-483

Has your  
buddy read  
this issue?  
Pass it along!

WHAT ARE **YOU** DOING TODAY  
TO MAKE SURE  
**YOUR** EQUIPMENT  
IS STILL READY FOR COMBAT?

**P.S. Today** ★  
**KUWAIT LIBERATED!**  
FEBRUARY 28, 1991

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Unlimited





You're the One ...

# ARE THE ONLY ONE!

WHY DO I HAVE TO FILL OUT ALL THESE FORMS?

WHO CARES WHAT'S ON 'EM?

WHO USES 'EM... AND FOR WHAT?



Only you know what your equipment will really do ...



... instead of what it's supposed to do.

The info you feed into the Army's Maintenance Management System under DA Pams 738-750 and 738-751 tells commanders all the way up the line how ready your equipment is.

LOOK AT THE DOWNTIME ON THIS TANK.



Forms provide vital information that can come only from you.

It also gives the designers and analyzers real field info to use in improving your equipment.

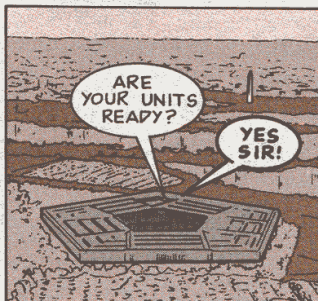
THESE EIRs, QPRs, 2406s, AND AOAP REPORTS...



"So what's in it for me?", you say. Both better readiness and better equipment, that's what.

ARE YOUR UNITS READY?

YES SIR!



FEB 93

FEB 93

PS

THE PREVENTIVE MAINTENANCE MONTHLY

TS 43-PS-483. 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.

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

MSG Half-Mast  
The Preventive Maintenance Monthly  
Lexington, KY 40511-5101

By Order of the Secretary of the Army:

GORDON R. SULLIVAN  
General, United States Army Chief of Staff

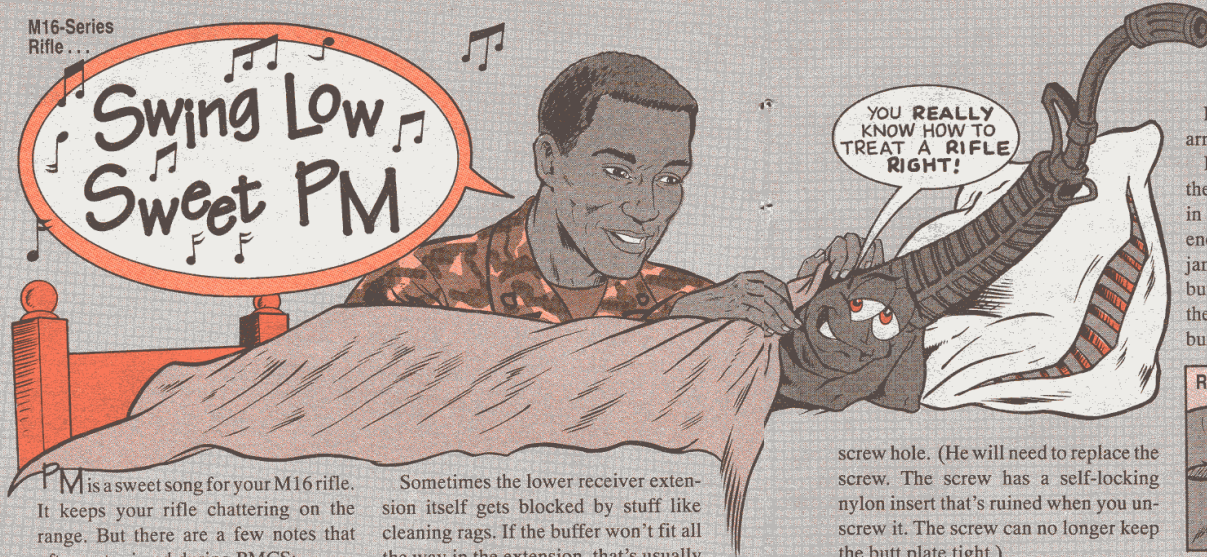
Official:

Milton H. Hamilton  
MILTON H. HAMILTON

Administrative Assistant to the Secretary of the Army  
03282

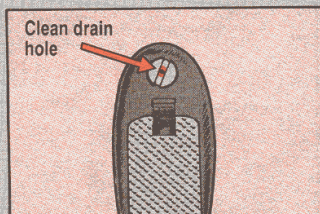
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**PM** is a sweet song for your M16 rifle. It keeps your rifle chattering on the range. But there are a few notes that often get missed during PMCS:

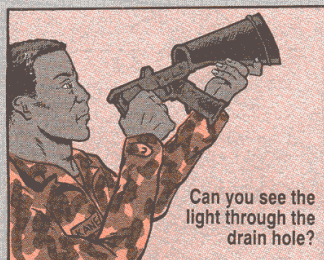
**LOWER RECEIVER** — Every time you rest the rifle butt in sand or dirt, the butt cap screw drain hole can easily get plugged. A plugged hole means moisture is trapped in the lower receiver extension. Corrosion follows and eventually ruins the extension.



Unplugging the drain hole is as simple as running a pipe cleaner through it. Do that every time you clean your rifle.

Sometimes the lower receiver extension itself gets blocked by stuff like cleaning rags. If the buffer won't fit all the way in the extension, that's usually the problem.

An easy way to check is to clear the drain hole and hold the receiver up to the light. Look down the tube. If something's in there, you won't see light.

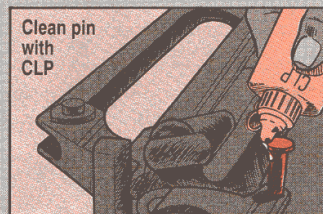


Your armorer can clear the tube by removing the butt cap screw and pushing a cleaning rod section through the

YOU REALLY  
KNOW HOW TO  
TREAT A RIFLE  
RIGHT!

screw hole. (He will need to replace the screw. The screw has a self-locking nylon insert that's ruined when you unscrew it. The screw can no longer keep the butt plate tight.)

**PINS** — If you're having to muscle or hammer the takedown and pivot pins in the receiver, something's wrong and you're going to either damage a pin or the receiver.



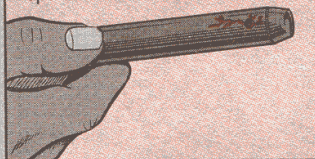
Cleaning helps a reluctant pin. Clean it with CLP, getting all crud out of the pin's groove. Then align the pin holes. Wiggle the pin in the hole as you push down.

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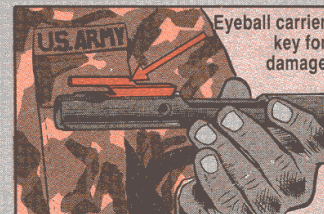
If the pin still won't go, tell your armorer.

**BUFFER** — Repeated firing can crack the buffer, especially the kind with holes in the housing. If the buffer cracks enough, the plastic end comes off and jams in the lower receiver. Eyeball the buffer for cracks, particularly between the hole and plastic end. Report a cracked buffer.

Report a cracked buffer



**CARRIER KEY** — The banging back and forth of the bolt carrier bends or loosens the carrier key. That makes it tough for the carrier key to mate with the gas tube. Feel the key for looseness. Eyeball it for bends or being out-of-round.



Your armorer should be gentle straightening a bent key. If he hits the carrier key tool too hard, he loosens the key.

3

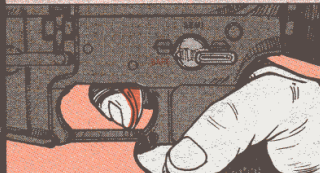


# Douse Double Fires with PM

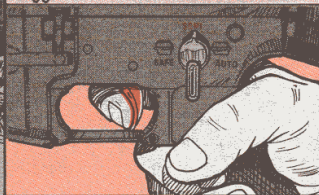
**T**ime and firing take their toll on M16 trigger assemblies. Eventually, a rifle can get in such poor shape that it double-fires or fires when the trigger is released... unless you armorers function-test it at least every 90 days.

Check all M16s like this:

Charge the rifle and place the selector lever on SAFE. Pull the trigger. The hammer must not fall.



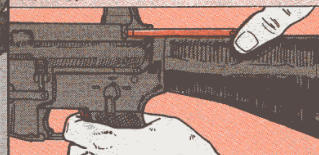
Move the lever to SEMI. Pull the trigger. The hammer must fall.



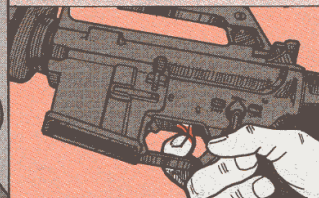
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FEB 93

Hold the trigger to the rear and charge the rifle.

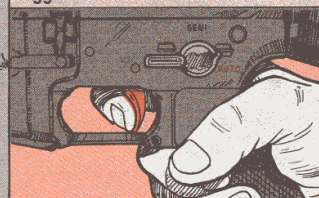


Slowly ( $1/4$  to  $1/2$  the rate of normal trigger release) and smoothly (without hesitation) release the trigger. You may hear a click, but the hammer must not fall.



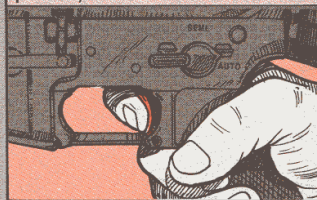
The rifle must pass the SEMI test five times. If it fails just once, it's unsafe.

**M16A1 RIFLES**—Move the lever to AUTO. Charge the rifle and pull the trigger. The hammer must fall.

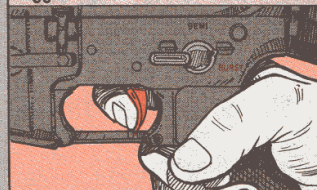


FEB 93

Hold the trigger to the rear and charge the rifle. Release the trigger. Pull the trigger. The hammer must not fall (it should have already been in the fired position).



**M16A2 RIFLES**—Move the lever to BURST. Charge the rifle and pull the trigger. The hammer must fall.



Hold the trigger to the rear and charge the rifle three times. Release the trigger. Pull the trigger. The hammer must fall. (When the burst disconnector reached the deep notch of the burst cam, it should have held the hammer in the cocked position until the trigger was released.)

**IF THE RIFLE FAILS ANY OF THESE TESTS, IT MUST NOT BE USED. IT'S UNSAFE AND MUST BE CHECKED OUT BY SUPPORT.**

5



# 20/20

**If** you can't see what you're shooting at, you're not going to hit anything...especially with a line-of-sight missile like the TOW. You don't ignore your own eyes' needs, so don't ignore your TOW's.

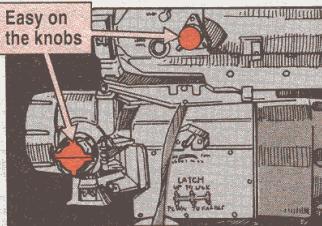


**I  
NEED  
GOOD PM  
TO SHOOT**

## Adjustment

Never muscle the elevation and azimuth knobs on either sight. Too much force breaks the day sight knob stops, which makes it difficult to center the sight. On the night sight, the knobs lock up and the sight can't be adjusted at all.

**Easy on  
the knobs**

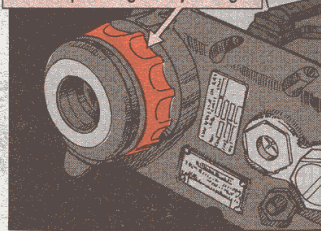


Some operators think the day sight diopter ring has to be set on 0 to operate. Wrong! The diopter ring allows opera-

# SIGHT PM

tors to adjust the sight to their eyes—even if they normally wear glasses. Set it so you can see.

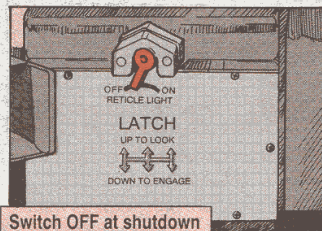
**Use diopter ring to adjust sight**



There is a difference between the new AN/TAS-4C night sight and the older AN/TASs. The -4C requires about two minutes warmup (a bottle indicator shows when it's ready). If you immediately do a self-test, you'll get a FAIL.

## Shutdown

Double-check that you turn the day sight's reticle light switch off at shutdown. Left on, the switch drains the MGS battery. It takes four hours to recharge the battery.

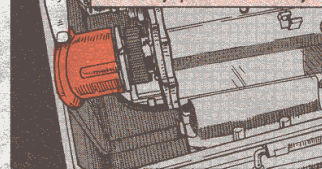


**Switch OFF at shutdown**

Screw in the night sight eyepiece all the way before you store the sight in its

case. Otherwise, the eyepiece eyeshield can be torn off by the case edge.

**Screw eyepiece all the way in**

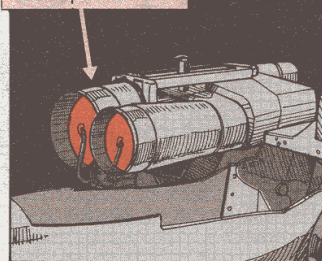


## Cleaning

You know to clean the sight lenses with lens tissue and cleaning solution after every mission. But you also need to clean away dirt and sand from the eyepieces, knobs and rings. If you don't, you'll soon have trouble adjusting the sights. You can sweep out most dirt with a soft brush.

Get day sight lens covers that protect the lenses from blowing sand.

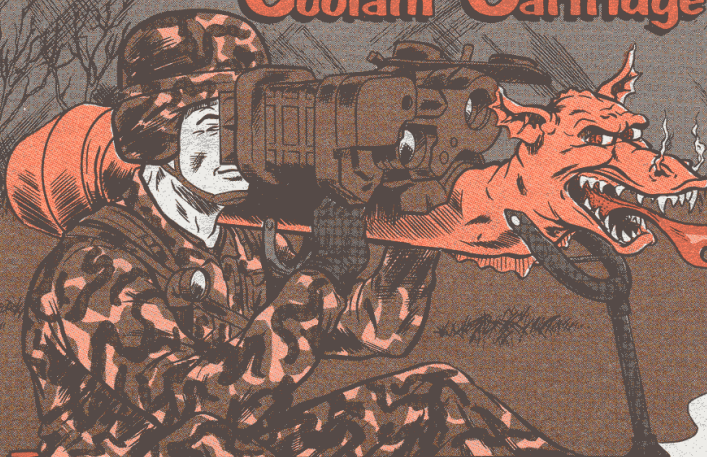
**Covers protect lenses**



Order the large cover with NSN 5340-01-121-8776, the smaller with NSN 5340-00-855-7993, and the eyepiece cover with NSN 5340-01-087-1298.



# Coolant Cartridge Is a Must



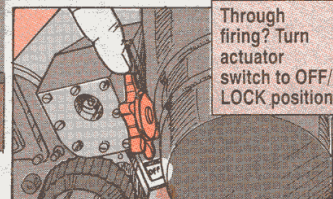
KEEPING MY COOLANT CARTRIDGE LOCKED IN THE NIGHT SIGHT HELPS ME LOCK IN THE ENEMY AT NIGHT!

You may have to do this several times before you get a good fit.

If rotating doesn't do the trick, try a different cartridge. Still no luck? Time for your repairman.

When you're through firing, doublecheck that the actuator switch is

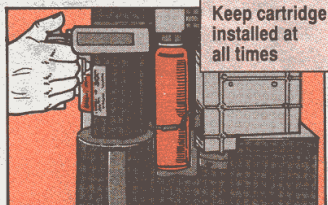
at OFF/LOCK. It's easy to forget to turn the sight off or accidentally turn the switch to RELEASE.



Through firing? Turn actuator switch to OFF/LOCK position

Leaving the sight on drains the cartridge and battery. With the switch on RELEASE, the cartridge slips out far enough for sand and moisture to get in the actuator.

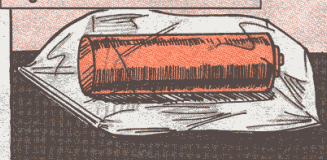
**T**he most important thing you can do to help your Dragon see sharp in the dark is to always ... all the time ... forever ... keep a coolant cartridge locked in the night sight.



Keep cartridge installed at all times

Keep cartridges in the plastic bags they come in until time to use them. When they're empty, put them right back in the bags. The bags keep sand and moisture away from the cartridge connector and out of the cooling system.

Keep extra cartridges in plastic bags when not in use



Without the cartridge installed, the actuator seal dries out and the actuator leaks compressed air. No cartridge also means sand and moisture get in the actuator. Just one grain of sand or one drop of moisture shuts down the cooling system.

When you install the cartridge, do not force the actuator switch. That can destroy the actuator ball bearings and the cartridge's needle valve.

If you feel resistance, rotate the cartridge slightly and try the switch again.

M901 Improved TOW Vehicle ...

## Stop Sight Seal Stretching

Dear Editor,

We've had quite a bit of trouble with the upper seal on the M901's squad leader periscope loosening and stretching. That lets moisture in the periscope and the squad leader can't see.

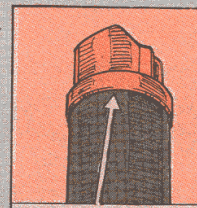
We've stopped most seals from loosening by putting on new seals with silicone adhesive, NSN 6850-00-880-7616. The adhesive holds the seal in place.

It's also important to keep paint away from the seal. Paint causes the seal to deteriorate and loosen.

Look at the seals for trouble spots at least monthly during periods of high heat and humidity.

That's when seal problems are the worst.

SPC Jimmy Carlton  
Ft Benning, GA



Use silicone sealant to put on new seals

FROM THE DESK OF THE Editor  
Your seal suggestion is a good one.  
We give it our seal of approval.



# A Pile of Parts

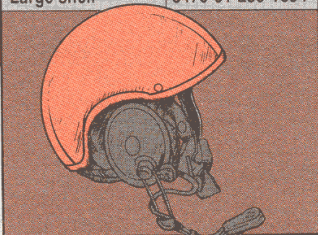
To keep your CVC helmet fit, you need three manuals.

Chapter 4 of TM 10-8400-203-23 covers helmet PM and parts; TM 11-5965-286-14 has communications PM; and TM 11-5965-286-23P has repair parts for the MK-1697/G headset-microphone kit.

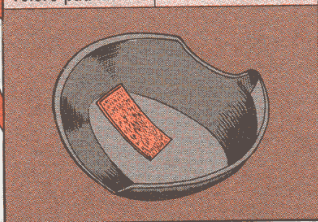
HERE'S A LIST OF NSNs FOR PARTS YOU CAN REPLACE AT UNIT LEVEL...

Small/Medium shell 8470-01-259-1693

Large shell 8470-01-259-1694



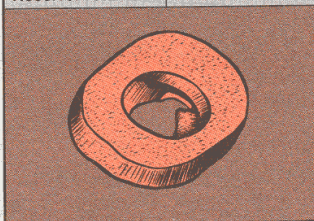
Velcro pad kit 8415-01-207-1196



Molding, 36-in strip	9390-00-710-4355
Clothing clip	5965-00-135-0545
Space plate	5365-01-076-8073
Grommet*	CAGE 80063 PN SM-B-436118 RIC B16*

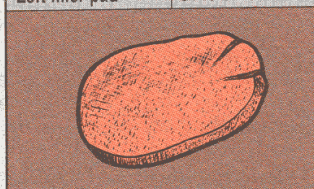
\* Order on DD Form 1348-6 using CAGE/PN/RIC

Receiver retainer 8140-01-093-0590

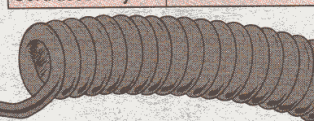


Right filler pad 8140-01-063-1910

Left filler pad 8140-01-063-1909



Cord assembly 5995-00-302-7521



Don't chuck your helmet shell just because the rubber edging's torn or missing. Repair it. NSN 9390-00-710-4355 brings a 36-in strip of edging. NSN 8040-00-165-8614 gets you a quart of adhesive.

Brow pad  
8415-00-163-9046

Microphone  
5965-00-937-1851

Tab attachment kit  
8415-01-207-1197

Machine screw  
5305-00-224-0783

Switch lever  
5930-00-114-4362

Earphone cushion  
5965-00-135-0505

Earphone filler pad  
8140-01-099-7869

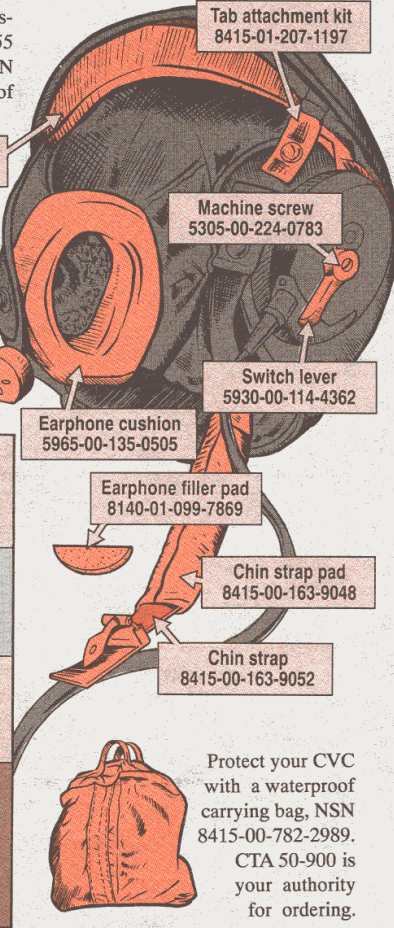
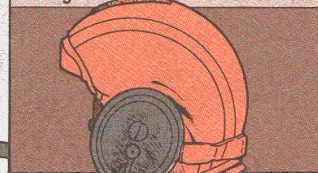
Chin strap pad  
8415-00-163-9048

Chin strap  
8415-00-163-9052

Inner helmet liner	
Small	8415-00-134-9396
Medium	8415-00-134-9397
Large	8415-00-134-9398

Center pad set	
Small	8415-00-163-9040
Medium	8415-00-163-9042
Large	8415-00-163-9044

Side pad set	
Small	8415-00-163-9041
Medium	8415-00-163-9043
Large	8415-00-163-9045



Protect your CVC with a waterproof carrying bag, NSN 8415-00-782-2989. CTA 50-900 is your authority for ordering.



# Insulate Service Brake Cable

Drivers, hot air from the personnel water melts the plastic covering on the front service brake control cable in your M1-series tank.

I GUESS IT'S TIME TO "PUT THE BRAKES" ON BURNT CABLE.

Protect the assembly and prevent cable hangup by getting your mechanic to insulate the cable. Here's how:

1. Remove the two clamps holding the cable to the hull.

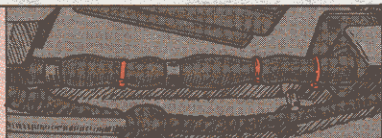
2. Cut off a 15-in piece of insulation sleeving and slit it open lengthwise. NSN 5640-01-100-0444 gets enough sleeving for 59 tanks. Put the sleeving over the cable and slide it against the jamnut.



3. Slip two new clamps, NSN 5340-00-912-8871, over the insulated cable and re-attach it to the hull.



4. Tighten the sleeving in place with straps, NSN 5975-00-074-2072. One strap goes between the two clamps. The other two go forward of the clamps.

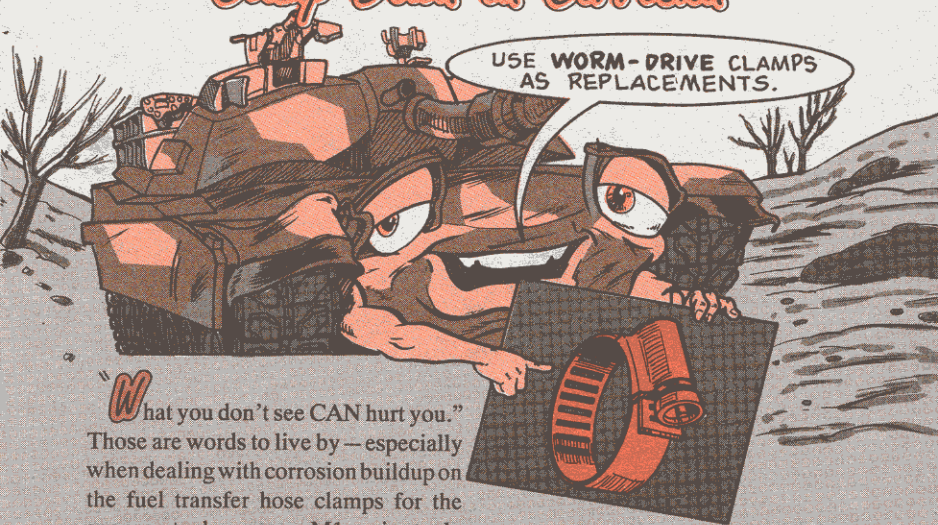


If the cable was already damaged, follow the steps in TB 43-0001-39-2 (Jul 92) to repair it.



M1-Series  
Tanks ...

## Clamp Down on Corrosion



**W**hat you don't see **CAN** hurt you." Those are words to live by — especially when dealing with corrosion buildup on the fuel transfer hose clamps for the sponson tanks on your M1-series tank.

Problem is, these clamps corrode easily and break. Then fuel leaks onto the engine and hull floor, creating a fire hazard.

Mechanics, the next time you pull the powerpack, replace any spring clamp you find with worm-drive clamp, NSN 4730-00-908-6292. This worm-drive clamp resists corrosion better and is less likely to allow a leak.

## Mix and Match Roadwheels

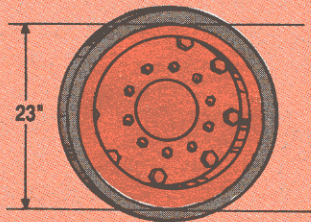
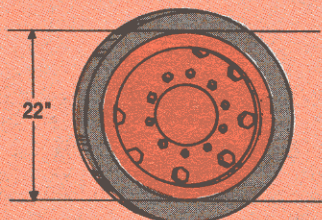
**N**ot sure if it's okay to mix and match roadwheels on your M1-series tank? Relax. The roadwheels are interchangeable on both the M1/IPM1 and M1A1 vehicles.

Make sure each roadwheel arm has:

Two M1/IPM1 roadwheels

or

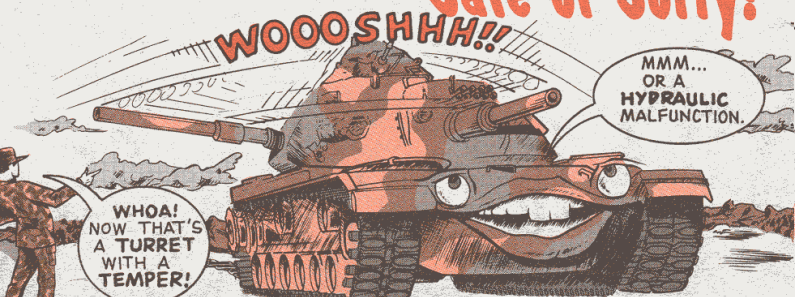
Two M1A1 roadwheels



Measure roadwheels by metal, not rubber



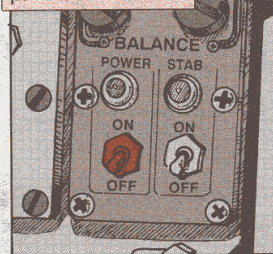
# Safe or Sorry? It's Your Choice!



When you're in the turret of an M60-series tank, you crewmen and mechanics have a choice: You can either be safe or sorry (as in dead or seriously injured).

A hydraulic malfunction can cause the turret to traverse—even though the gunner's turret power switch is OFF—when the turret lock is unlocked and the gun is out of travel lock. If you get ANY movement under these conditions, let your turret mechanic know about it immediately!

The turret can traverse even if the turret power switch is OFF!

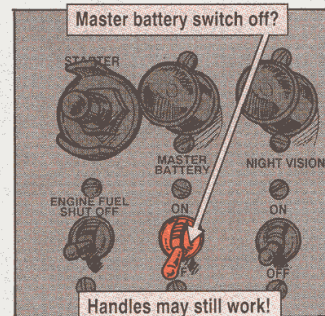


KEEP YOURSELF AND OTHERS **SAFE** BY DOING THESE THINGS...

**1.** As a warning, yell "POWER" before applying turret or stabilization power and before touching turret controls. Crewmen can be hurt if they're in the wrong place when the turret traverses.



**2.** Never assume the control handles won't work when the master battery or turret power switch is off.



**3.** Never use the handles to help yourself get into or out of the gunner's station.

**4.** Be sure the turret lock is locked and the gun is in travel lock before leaving the tank.

**5.** Never operate the master battery switch by reaching into the driver's compartment from the turret or from outside the vehicle. If the turret moves, you could be injured or killed.

**6.** Never reach over the main gun to turn the turret power switch on or off. That brings your body between it and the turret roof. If the main gun moves down, you could be killed.

## M88A1 Recovery Vehicle...

### Wrong Stock = No Stock

You have to make your own engine deck seals when it's time to replace the ones on your M88A1 recovery vehicle. But TM 9-2350-256-20P gives you the wrong NSNs for the bulk stock you need.

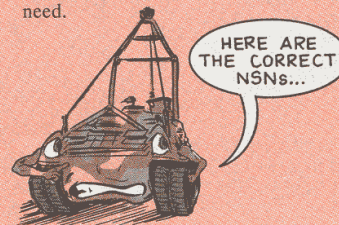
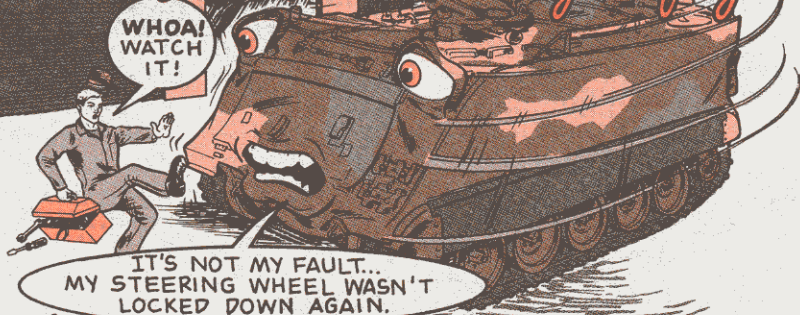


Fig 171	NSN 9390-00-893-
Items 17, 18, 52, & 53	1907
Items 19, 26-30, 38-40, 46, 69-73, & 84-86	1908
Items 47-51	1906
Fig 171.1	NSN 9390-00-893-
Items 17-21	1907
Items 22, 33, 34, 36-40, & 46	1908
Items 47-51	1906

NSN 9390-00-893-1906 and NSN 9390-00-893-1907 can be ordered only in 50-ft lengths. NSN 9390-00-893-1908 is available in pieces 10 feet long.



# Pin Down Pivot Steering Safety

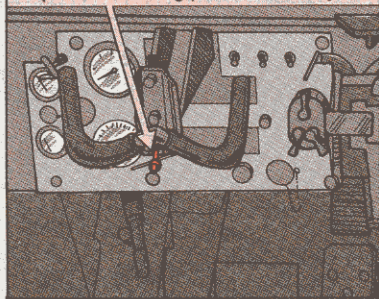


**A**n unexpected pivot steer in your M730A2 guided missile carrier or M113A3 personnel carrier is downright dangerous.

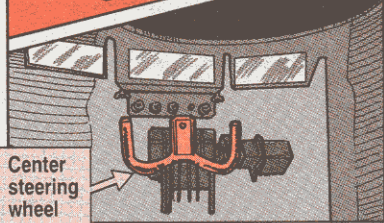
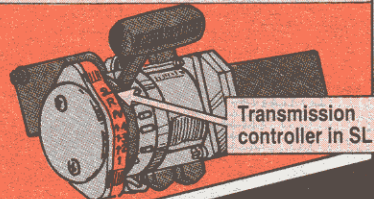
All it takes is an accidental nudge of the steering wheel on a powered-up vehicle. Not only will you be banged around inside, but someone standing outside could be crushed.

Prevent this danger by using the vehicles' steering wheel lock pin before leaving the driver's seat. That locks the steering wheel in place and ends any chance of an unexpected sudden pivot.

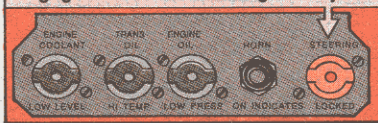
The M730A2's locking pin, NSN 5315-01-230-3705, engages manually. Replace a missing pin immediately.



The locking pin on the M113A3 engages automatically. With the engine running, simply put the transmission controller in SL and center the steering wheel.



The steering locked indicator light located above the steering wheel should light up. If not, the pin's not engaged. Get it checked right away.



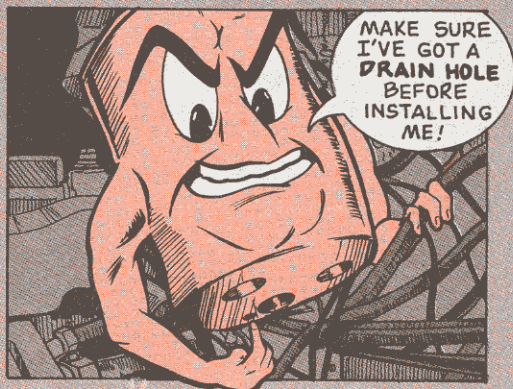


## Air Filter Housing Drain Hole

**O**perators, make sure the air filter housing on your personnel carrier has a little drain hole to let water out.

That little hole is a life-saver for the air filter element. It keeps water away from the filter element.

The hole should be on the housing bottom. If yours doesn't have one, get your mechanic to drill one using a 3/16-in bit.



M2/M3-Series Bradleys, MLRS,  
M809- and M939-Series Trucks...

## Filter Kit Pulls Double-Duty

**T**wo for one, mechanics. That's what you get when ordering oil filter kit, NSN 4330-01-108-9296, for the M2/M3-series Bradley and MLRS.

The key is an extra gasket that comes with the kit. With that gasket, the kit contains everything you'll find in oil filter kit, NSN 2940-00-404-3057, for the MLRS and M809- and M939-series trucks.



Use filter and these parts for the Bradley and MLRS:



Gasket  
P/N 173368S



Washer  
P/N 8265S



Gasket  
P/N 153518S

### BRADLEY/MLRS OIL FILTER KIT



Filter  
P/N 158139

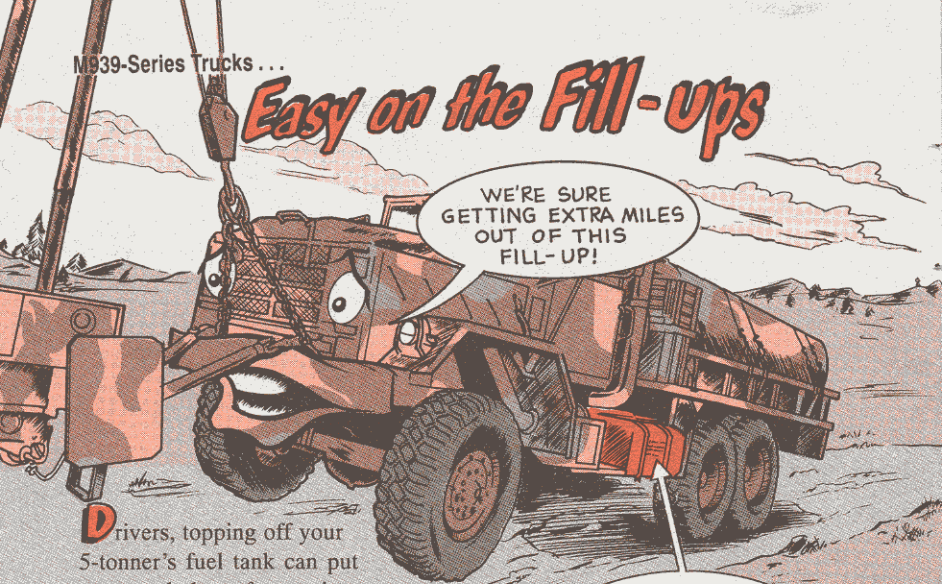
Use filter and this gasket for M809- and M939-series trucks:



Gasket  
P/N 153528



## Easy on the Fill-ups



**D**rivers, topping off your 5-tonner's fuel tank can put your truck down for repairs.

### How so?

Fuel from a too-full tank gets into the fuel vent lines, then into the engine air intake system. This extra diesel fuel being pulled into the engine from the air cleaner can cause a runaway engine.

So, when you fill your tank, stop about two inches below the fill neck to leave expansion room.

If the fuel tank on your truck does not have a fill line, have your mechanic paint one on like it says on Pages 40-41 of TB 43-0209.

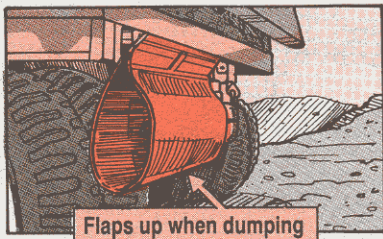
CAUTION -----  
DO NOT FILL ABOVE  
THIS LINE TO ALLOW  
FOR EXPANSION

## M929/M930 Dump Truck...

### Hook Up Mud Flaps

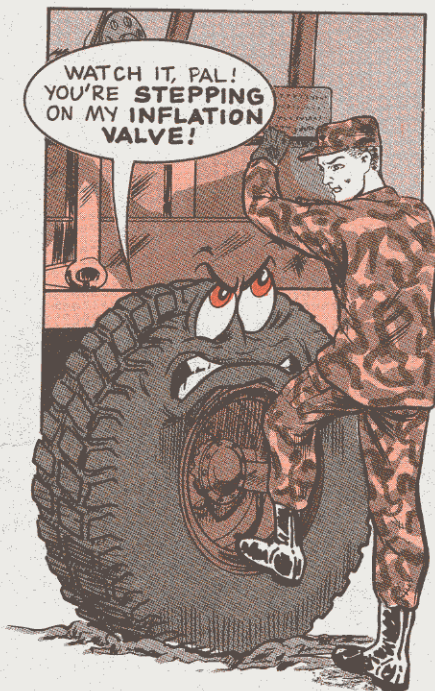
**H**ey, 5-ton dump truck drivers, what's going on? Lots of rear mud flaps are being torn off.

There's no good reason for that. Those mud flaps have special hooks to keep them out of the way of the wheels when dumping. So use the hooks and save a flap.





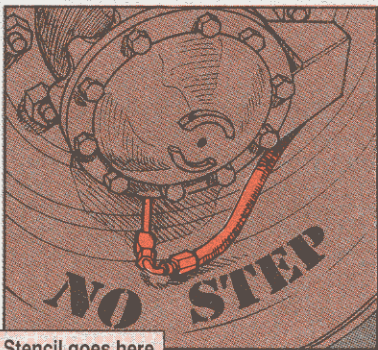
## A Step in the Right Direction



There's no guard on the air inflation extension valve on the M939A2-series truck.

If you step on the tire to climb in the back of your truck, you can break the valve. The tire goes flat.

As a reminder, get your mechanic to use black CARC paint to stencil "NO-STEP" on the area in front of the extension valve. The stencils are part of the No. 1 Common shop set.



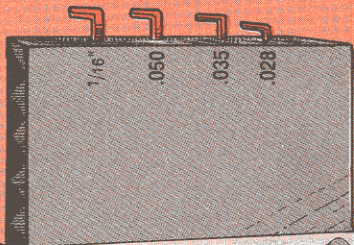
## Cardboard's the Key

Dear Editor,

The socket head screw keys from our tool sets are easy to lose.

I keep track of mine by pushing the keys through the folds of a piece of corrugated cardboard. The keys stay put and are easy to find and inventory.

SSG Russell Shaw  
Jefferson City, MO



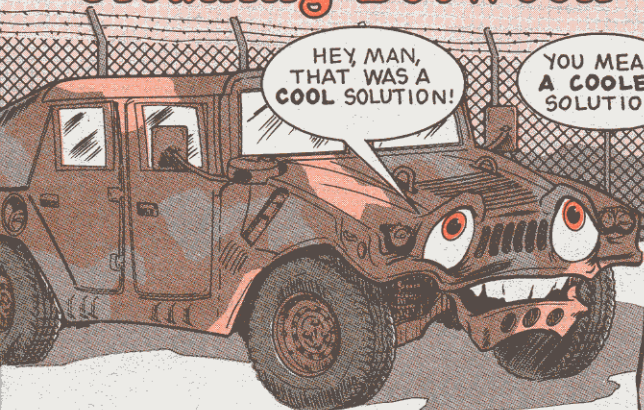
FROM THE DESK OF THE Editor

The key to solving this problem was imagination. Good work.



HMMWV ...

# Cleaning Between Coolers



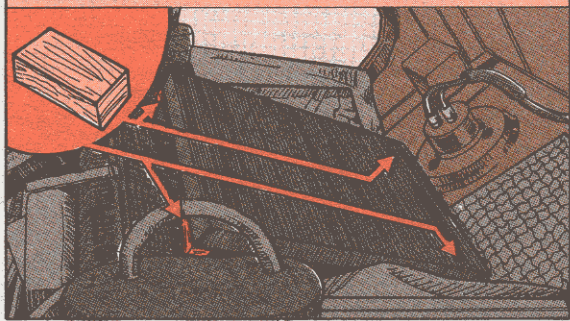
YOU MEAN  
A COOLER  
SOLUTION.

**K**eeping your Humvee's engine cool means keeping the radiator and oil cooler clean. That's not easy when they're stacked on top of each other with little room between.

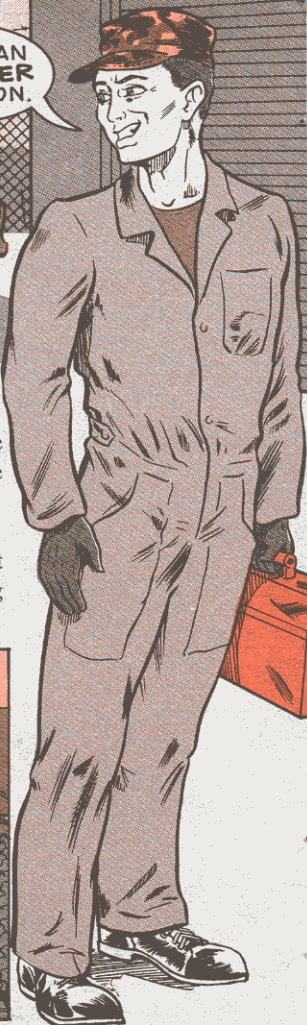
Here's a cooling solution:

Remove the four socket head screws and washers that hold the oil cooler to the radiator. Move the power steering cooler out of the way.

Raise the oil cooler—carefully—and place a 2 x 4 x 2<sup>1</sup>/<sub>2</sub>-in wood block under each corner



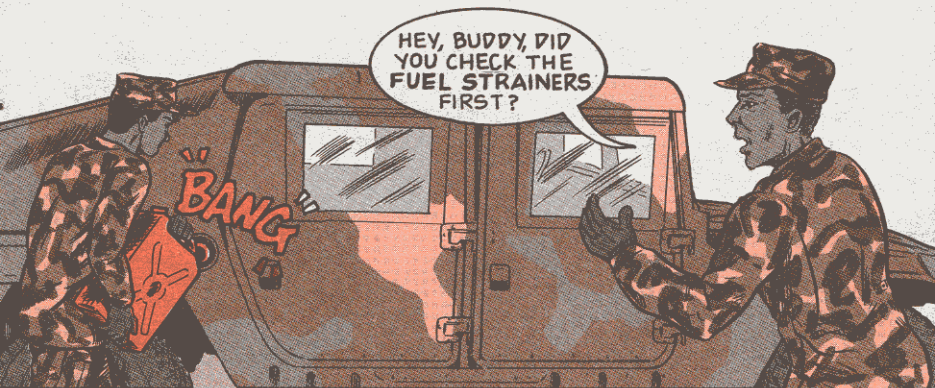
Clean between the coolers using only low-pressure water and low-pressure air. Take care when handling the cooler so you don't bend cooling fins. Wear gloves to protect your hands.





HMMWV...

# Strain for Clean Fuel



**G**etting clean fuel to your Humvee's engine requires good strainers, and a little less strain from you.

When you re-fuel your vehicle with a pump, go easy with the nozzle. Slamming it into the filler pipe damages the strainer inside. That lets dirty fuel clog up filters down the line.

**When re-fueling from 5-gal cans, make sure the strainers in the nozzle are in good shape**



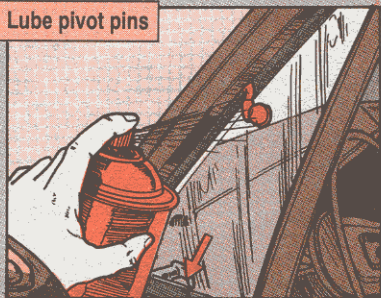
CUCV...

## Put Pivot Back in Side Window

**T**hose side ventilator windows on the CUCV get hard to open or stick shut when the window's pivot pins corrode.

Free up rusted pivot pins with a shot of lubricating spray, NSN 9150-00-458-0075. Open and close the window vigorously a few times. Then spray the pivot pins again at every scheduled service. Lube keeps the pins free so you can open the ventilating wing window.

**Lube pivot pins**





## Glitch in the Idle Switch

**M**echanics, a HEMTT engine that won't stay at high idle during wrecker or crane operations is dangerous for the crewmen operating the equipment. The good news is that the problem is often a corroded high idle relay switch.

Here's a quick fix in case the switch cuts out:

Remove the switch (Para 7-10 in TM 9-2320-279-20-1 has the details).

Then clean any corrosion off the switch with spray cleaner, NSN 6850-00-003-1194. Reinstall the switch.

If that doesn't solve the problem, replace the switch, NSN 5945-01-170-6666.



### HEMTT ...

## Pin Down Panels

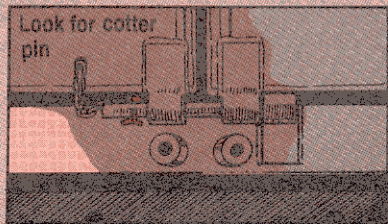
**W**orried about side panels sliding off your M977 or M985 cargo trucks before you want them to? While you or another soldier are in the way, f'rinstance?

Pin those panels down.

Drill a 1/8-in hole in the end of each hinge pin, and another in the panel near the pin.

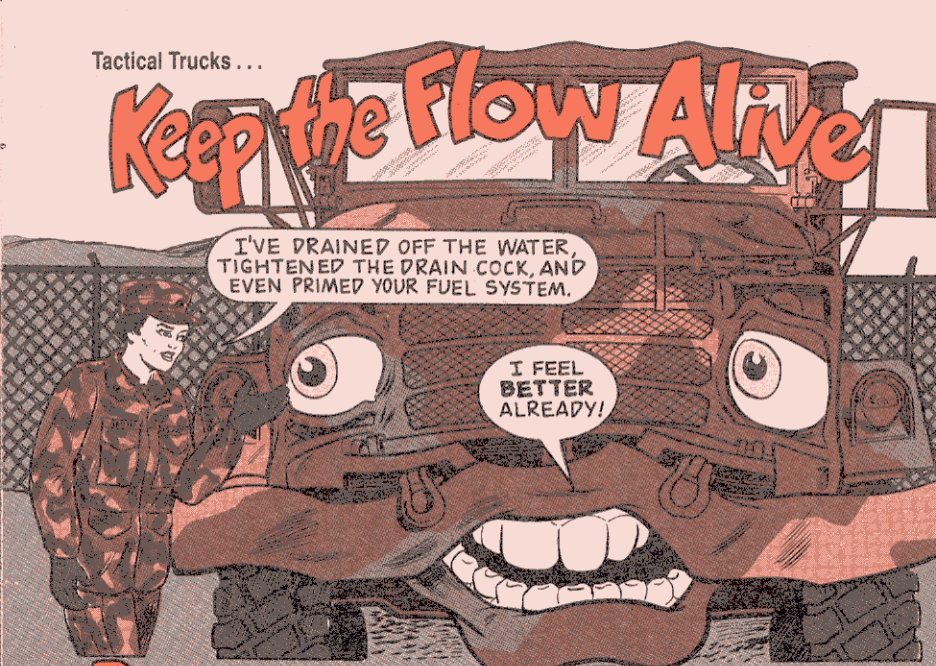
Then, use two cotter pins, NSN 5315-00-059-0187, and an 8-in length of weldless chain, NSN 4010-00-129-3221, to keep the pins in place until you're ready to remove the panels.

Force a cotter pin over a link at each end of the chain. Then, slide one cotter pin through the hole in the pin, and the other cotter pin through the hole in the panel. Spread the legs of the cotter pin.





# Keep the Flow Alive



I'VE DRAINED OFF THE WATER, TIGHTENED THE DRAIN COCK, AND EVEN PRIMED YOUR FUEL SYSTEM.

I FEEL BETTER ALREADY!

**D**rainage the gunk from your truck's fuel filter/water separator or straight fuel filter can make problems, not solve them, unless you remember to:

☛ Drain only a pint or so of liquid. You should get only fuel after that. If water or sediment is still flowing after another pint or so, tell your supervisor.

☛ Tighten the drain cock when you're through. If you forget, you'll have dangerous—and wasteful—fuel drips.

☛ After draining the filters, prime the fuel system where it's needed, like on your M800- or M900-series 5-ton trucks.

## Prime where needed



Drain fuel filters after each day's use

Without a prime, your engine gets air instead of fuel, and won't start or run. Be sure you put the drained fuel in a hazardous waste disposal container.

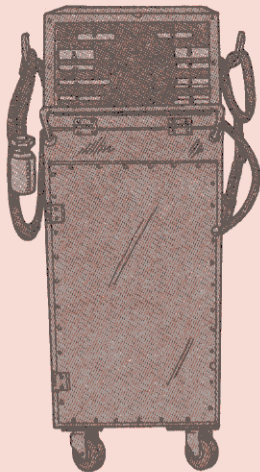


## Trailers/Semitrailers . . .

### Light Tester Plans Available

**T**roubleshooting the lights on a trailer or semitrailer is tough when there's no truck available to work the lights . . . unless you have a portable tester like the one built by the 37th Transportation Group in USAREUR.

With this tester, you can test either a 12-volt or 24-volt light system.



To get a set of plans and instructions for building the tester, drop a line to:

US Army Transportation  
School  
ATTN: ATSP-CDM  
Ft Eustis, VA 23604

## Shop Sets . . .

### Steel Ladder's Unsafe

**I**f a steel ladder came with your truck-mounted or semitrailer-mounted repair shops, it's unsafe. Replace it.

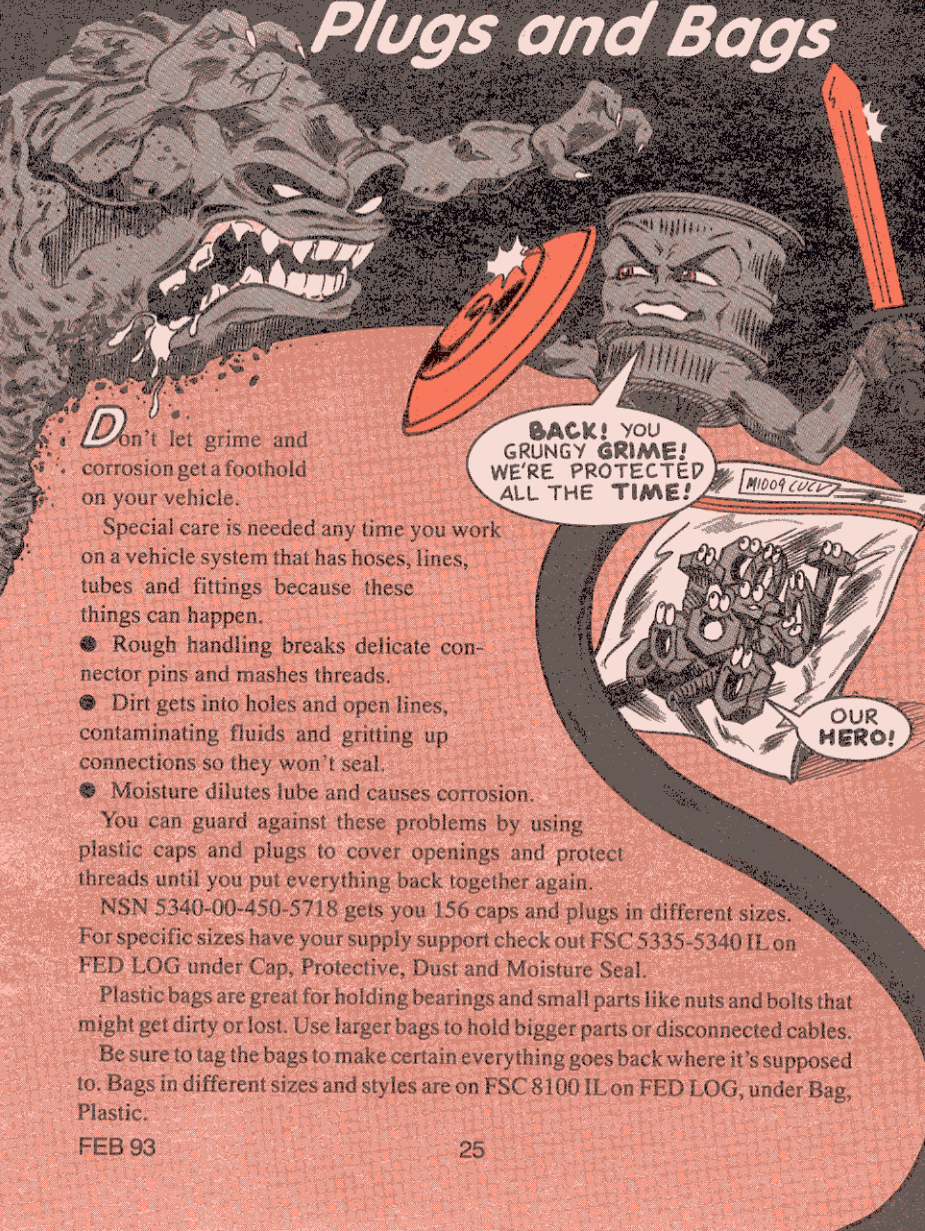
The new ladder, NSN 5440-01-269-2274, is made of fiberglass, has anti-skid steps, and is more stable. The old ladder, NSN 2540-00-285-1365, was unstable and offered no electrical protection.

See AMCCOM  
Safety-of-Use Message  
021900Z Jan 88 for  
details. See your local  
AMCCOM LAR for  
information.





# Cap Off PM with Plugs and Bags



**D**on't let grime and corrosion get a foothold on your vehicle.

Special care is needed any time you work on a vehicle system that has hoses, lines, tubes and fittings because these things can happen.

- Rough handling breaks delicate connector pins and mashes threads.
- Dirt gets into holes and open lines, contaminating fluids and gritting up connections so they won't seal.
- Moisture dilutes lube and causes corrosion.

You can guard against these problems by using plastic caps and plugs to cover openings and protect threads until you put everything back together again.

NSN 5340-00-450-5718 gets you 156 caps and plugs in different sizes. For specific sizes have your supply support check out FSC 5335-5340 IL on FED LOG under Cap, Protective, Dust and Moisture Seal.

Plastic bags are great for holding bearings and small parts like nuts and bolts that might get dirty or lost. Use larger bags to hold bigger parts or disconnected cables.

Be sure to tag the bags to make certain everything goes back where it's supposed to. Bags in different sizes and styles are on FSC 8100 IL on FED LOG, under Bag, Plastic.

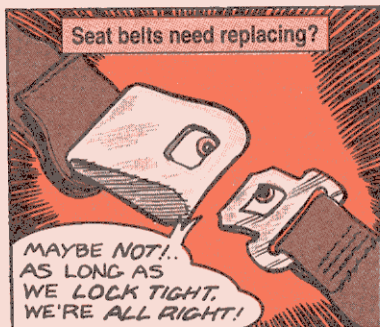


## No Deal on Seat Belts

**Y**ou're betting someone's life on a dead man's hand, if you cannibalize parts for a seat belt.

The male and female halves in each belt come as a pair. They're made for each other. If one breaks, replace both halves, or the lock-and-release mechanism might not work right.

A pair always beats one-of-a-kind. That's true in poker and seat belts.



Cosmetic damage, like cracks in plastic covers, do not make seat belts unserviceable. Make sure seat belts need replacing before you replace them.

### Maintenance Advisory and Safety-of-Use Messages

**AMCCOM Maintenance Advisory Msg 93-07**—M1-series tank, turret/gun mount hydraulic oil analysis, AMSMC-MA 231439Z Oct 92.

**ATCOM Maintenance Advisory Msg 92-37**—AN/PSS-12 mine de-

tecting set, SATBE-S 161300Z Nov 92.

**ATCOM Maintenance Advisory Msg 92-39**—AN/PSS-12 mine detecting set, SATBE-S 301300Z Nov 92.

**CECOM SOU Msg**—Follow-up to SOU Msg 92-05-02, AN/GVS-5 laser infrared observation set, AMSEL-SF-SEC 061900Z Nov 92.

Your Direct Support or Logistics Assistance Office (LAO) can provide you with more information.

### AUDIO VISUAL STUFF

Available at Battalion or Post Learning Center

#### TV Tapes

**706769** M9 Pistol, Organizational and Intermediate Maintenance Procedures (Part 1 only)

**706770** M9 Pistol, Operator Maintenance and Use

**708634** M915A2 Operation

**708635** M915A2 PMCS

**709152** M977 - PMCS

**709158** STE-ICE-R, Trouble-shooting the 6.2 Liter Engine

**709745** Accomplishing the Mission in a Chemical Environment

**709834** M969 - Refuel on the Move (ROM)

**709856** Stock Funding of Depot Level Repairs (SFDLR) - Revised

**709876** Fire Extinguishing Systems for the M992

#### Interactive Videodiscs

**707973** Supervise Platoon Vehicle Recovery Operations, M60A3 Tank

**709581** Supervise Platoon Vehicle Recovery Operations, M1 Abrams Tank

**709582** Supervise Platoon Vehicle Recovery Operations, M2/M3 Bradley



# Lessons Learned in the Hundred Years War, Hundred Days War, Hundred Hours War!

LISTEN IN ON A CONVERSATION THAT PROFESSOR INDIANA JONES AND A COLLEAGUE ARE HAVING. THE TOPIC IS A RECENT ADVENTURE THAT TOOK JONES TO THE TEMPLE OF RUINS IN THE FAR REACHES OF THE PERSIAN GULF.

PLEASE,  
JONES,  
CONTINUE.

AS  
I WAS  
SAYING...





...MY JOURNEY  
THROUGH THE DESERT  
ENDED AT THE TEMPLE OF  
RUINS. INSIDE THE TEMPLE WAS  
A **CRYPT** WHICH CONTAINED  
MANY ANCIENT **SCROLLS**.

EACH SCROLL  
WAS FILLED WITH  
LESSONS LEARNED  
FROM WARS  
LONG PAST!

ONE SCROLL WAS ABOUT THE  
CONFLICTS AND TRIUMPHS OF  
THE 100 YEARS WAR 1337-1453  
BETWEEN **FRANCE** AND **ENGLAND**.





**B**ACK THEN, KNIGHTS HAD TO **MAINTAIN** THEIR ARMOR... KEEP THEIR WEAPONS IN WORKING ORDER... CARE FOR THEIR HORSES AND TACK...

...AND BE EVER  
READY FOR COMBAT."



**SENTRY,**  
**MAINTAINING**  
YOUR EQUIPMENT  
IS PART OF  
YOUR REGULAR  
DUTIES!

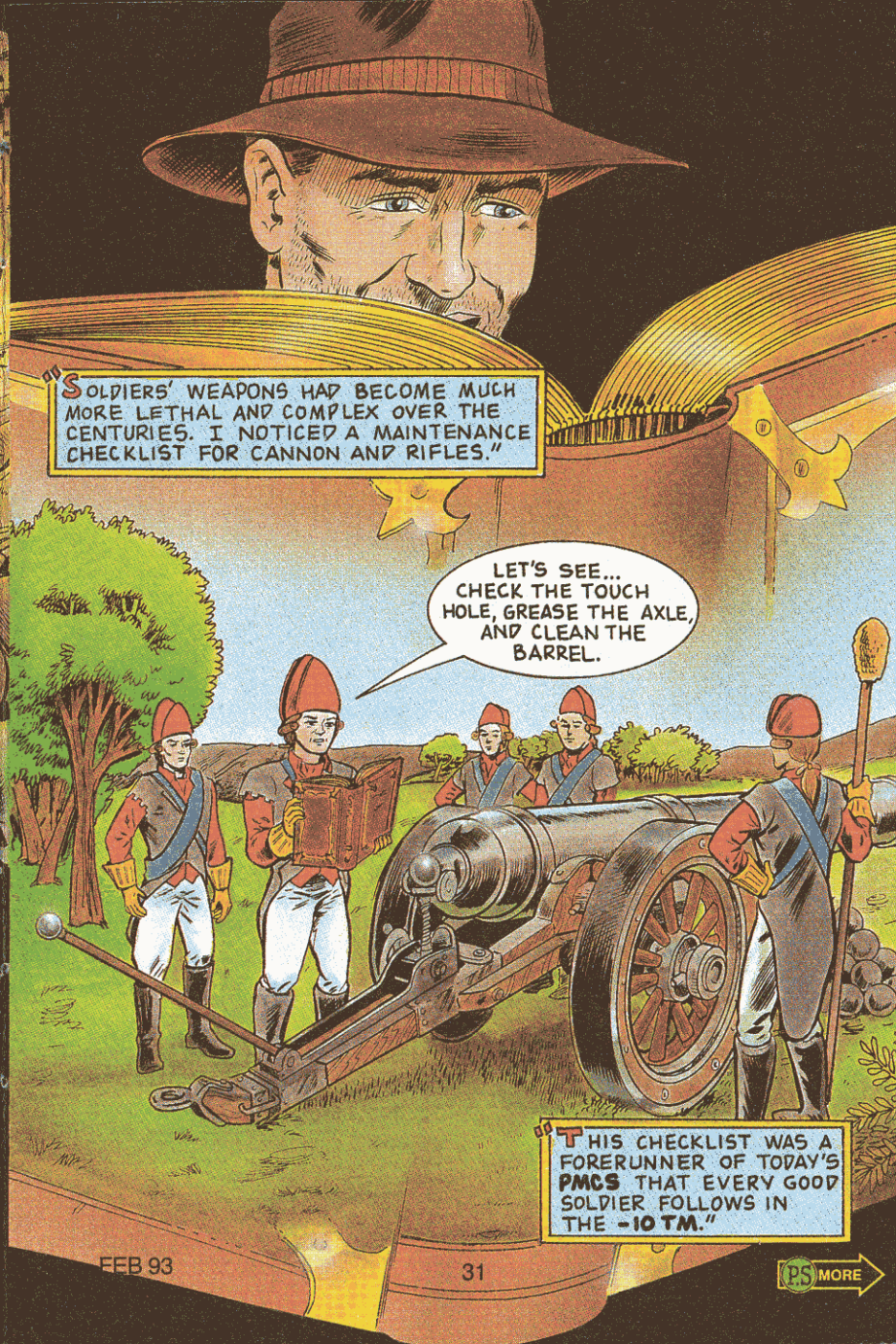


"AS I WANDERED FURTHER  
INTO THE CRYPT...

CLICK



... I CAME ACROSS AN  
OLD BOOK OF THE  
100 DAYS WAR  
OF 1815 WHEN  
NAPOLEON ESCAPED  
EXILE FROM ELBA  
ONLY TO MEET HIS  
WATERLOO WHILE  
MARCHING ON PARIS!"




SOLDIERS' WEAPONS HAD BECOME MUCH  
MORE LETHAL AND COMPLEX OVER THE  
CENTURIES. I NOTICED A MAINTENANCE  
CHECKLIST FOR CANNON AND RIFLES."

LET'S SEE...  
CHECK THE TOUCH  
HOLE, GREASE THE AXLE,  
AND CLEAN THE  
BARREL.


THIS CHECKLIST WAS A  
FORERUNNER OF TODAY'S  
PMCS THAT EVERY GOOD  
SOLDIER FOLLOWS IN  
THE -10 TM."



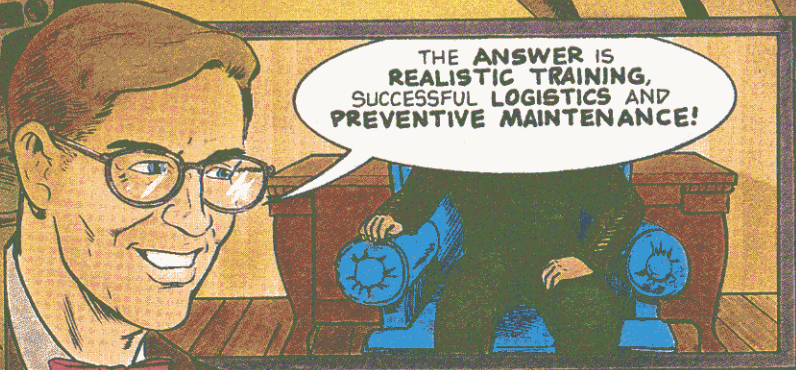


TELL ME, JONES, WHAT HAVE WE  
LEARNED FROM THE DOCUMENTS  
YOU FOUND?

WELL, OLD FRIEND, YOU  
NEED LOOK NO FURTHER  
THAN THE MOST RECENT WAR  
IN THE **PERSIAN GULF** THAT  
WAS DECIDED IN JUST **100**  
**HOURS OF GROUND**  
**COMBAT.**



**BEING PREPARED**  
AND STAYING PREPARED  
IS WHAT GIVES YOU THE  
LEADING EDGE TO  
**VICTORY.**



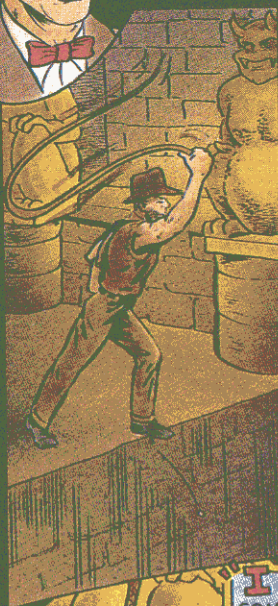
THE ANSWER IS  
**REALISTIC TRAINING,**  
**SUCCESSFUL LOGISTICS AND**  
**PREVENTIVE MAINTENANCE!**



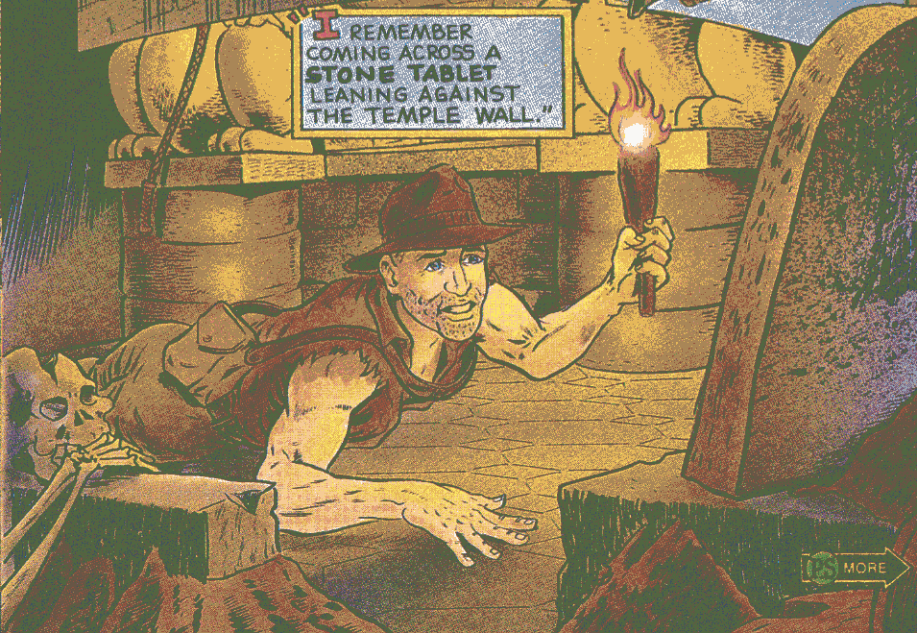


MORALE ON THE WINNING SIDE WAS HIGH BECAUSE SOLDIERS HAD CONFIDENCE IN THEIR LEADERS, THEIR EQUIPMENT AND THEIR ABILITY TO FIGHT AND WIN. LOSING SOLDIERS LACKED THAT CONFIDENCE.

... AS I THINK BACK TO THAT JOURNEY...



**I** REMEMBER COMING ACROSS A STONE TABLET LEANING AGAINST THE TEMPLE WALL.

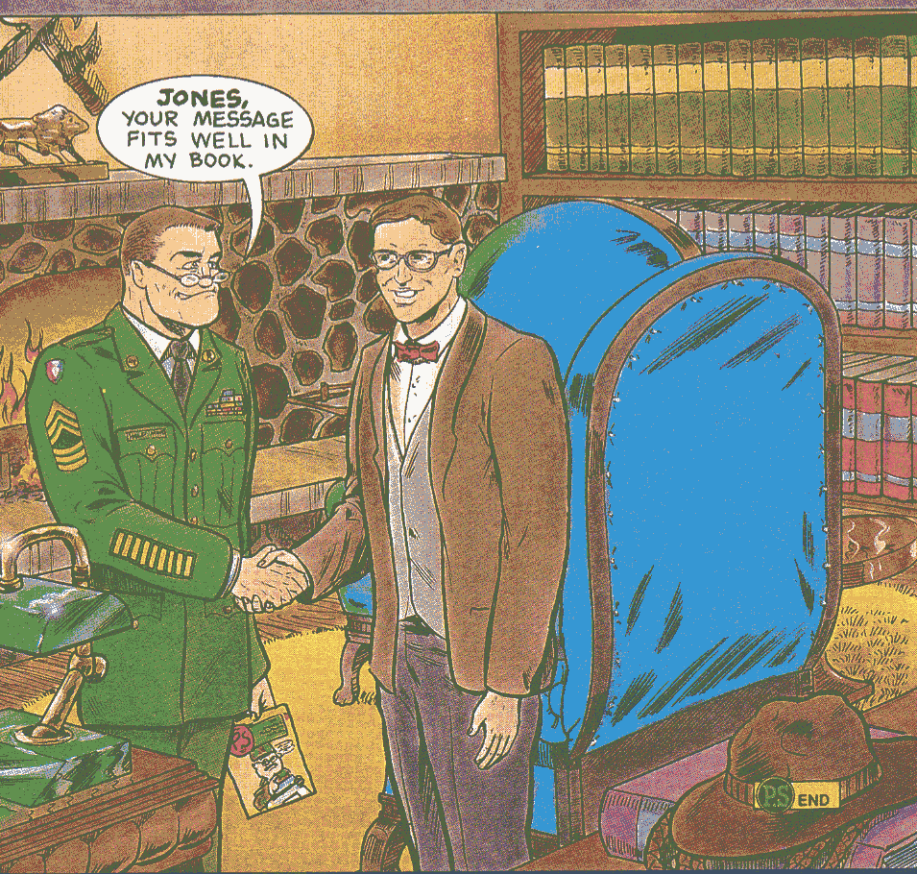






CARVED INTO THE  
STONE WAS THIS  
ANCIENT MESSAGE...

A word of advice to practice each day  
What others have learned the very hard way  
Take time to maintain  
Your gear to sustain  
Or your enemy will surely hold sway



JONES,  
YOUR MESSAGE  
FITS WELL IN  
MY BOOK.

PS END



# Seal the Pin in Place

Dear Windy,

The lower hinge pin (Item 18 of Fig 44 in TM 55-1520-234-23P-1) on the vertical fin driveshaft access cover slides down and damages the 42° gear-box access cover upper support bracket.

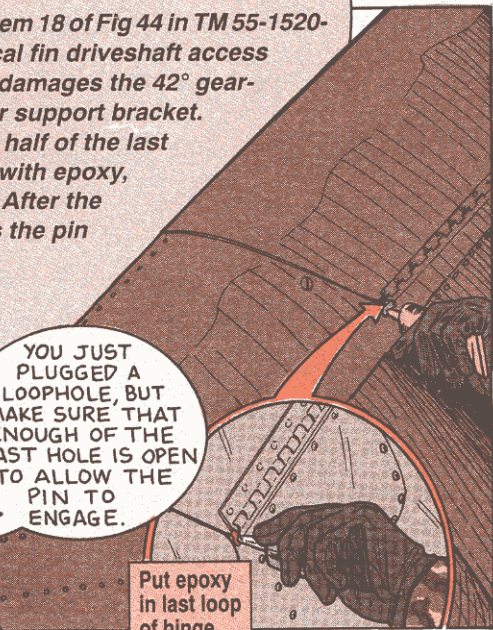
To stop this, we filled half of the last hinge pin retainer hole with epoxy, NSN 8040-00-944-7292. After the epoxy hardens, it stops the pin from slipping through.

Jim Galchick  
Greensburg, OH



YOU JUST PLUGGED A LOOPHOLE, BUT MAKE SURE THAT ENOUGH OF THE LAST HOLE IS OPEN TO ALLOW THE PIN TO ENGAGE.

Put epoxy in last loop of hinge



## Shelf Life of O-Rings

O-rings used in aircraft maintenance have an indefinite shelf life, like it says in Para 2-180 of TM 55-1500-204-25/1. But always inspect new O-rings before you install them. If you find one that's cut, brittle or flawed in any way, throw it out.

## Inspection Mirror

Got a broken inspection mirror, NSN 5120-00-618-6902, in your general aircraft mechanic's tool kit? You can replace the glass with NSN 5120-00-363-3914 for only 28 cents. A new mirror will cost you \$3.22.



# Hellfire PM



**PM** keeps the Hellfire hot-to-fire. Rough handling cools it off fast. Keep Hellfires fired up like this:

Keep all Hellfires—real and training—in their storage containers when they're not on the launcher. Take the containers to the field, too.

Without protection during transport, Hellfires suffer scratched laser seekers. Just a 1-in scratch stops it from hitting the target.

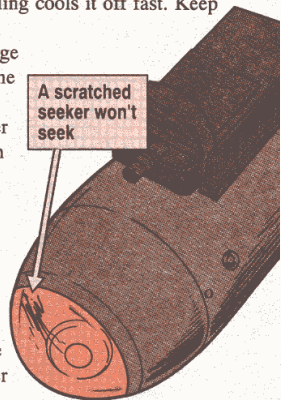
Left on the ground, Hellfire umbilical connectors get plugged up and laser seekers get dirty. If you try to upload a missile with a plugged connector, connector pins are bent. A dirty seeker misses the target.

If, despite your best efforts, a Hellfire is damaged, put it in its container. Things like torn fins or a busted seeker can be repaired. But if the missile gets more banged up, it may be wrecked. Each missile costs over \$20,000.

Before loading, eyeball the launcher and umbilical connectors and the seeker for dirt. Clean dirty connectors with soap and water and a swab brush. Rinse the connectors with clean water. Brush isopropyl alcohol on the connectors. Let the connectors air dry.

Save yourself cleaning trouble by putting the dust covers on the launcher connectors when you download.

A scratched seeker won't seek



Eyeball the connectors for dirt. Use dust covers

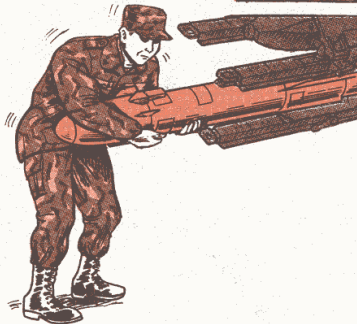
Clean the laser seeker with a soft lint-free cloth slightly dampened with isopropyl alcohol. Let it air dry. Wipe away fingerprints with a soft, dry, lint-free cloth.

Clean the laser seeker



Do not force Hellfires in the launcher. If a missile won't slide in easily, there's probably trouble with the connector or shoes. Slamming in the missile will damage both. Try a different missile.

NEVER JAM A MISSILE INTO ITS LAUNCHER!



Do not use the launcher rails as steps. You'll break the de-ice cover and maybe the electrical connector. Then you can't fire missiles.

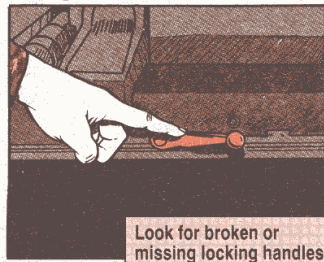
Cover

Connector

Keep feet off de-ice cover/connector

If you remove the launcher from the Apache, store it inside. At the very least, cover it with a tarp. Left out in the open, the launcher will corrode.

As part of your PMCS, check the launcher locking handles. They break or come off and get lost. Without them, you can't load missiles. Report broken or missing handles.



Look for broken or missing locking handles



# Tail Rotor Control

Dear Editor,

Holding the sprocket in place while removing and installing the control quill assembly on your Huey's tail rotor can be tough.

Paras 11-147.a. and 11-152.g. in TM 55-1520-210-23-2 say to hold the sprocket with a padded vise. But the sprocket can turn and come out of the vise. When that happens, the sprocket and control chain often get damaged.

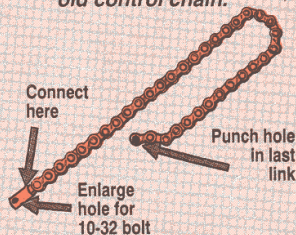
Luckily, the TM also says an "other suitable tool" can be used . . . so we made one!

It looks like this:



Here's how we did it:

1. Just take 18 links of an old control chain.



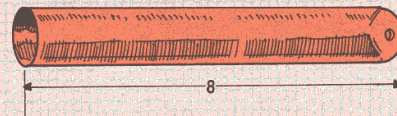
2. Attach a handle. We used an old tin snip handle.



# Quill Tool

An alternate choice for the handle is common bar stock.

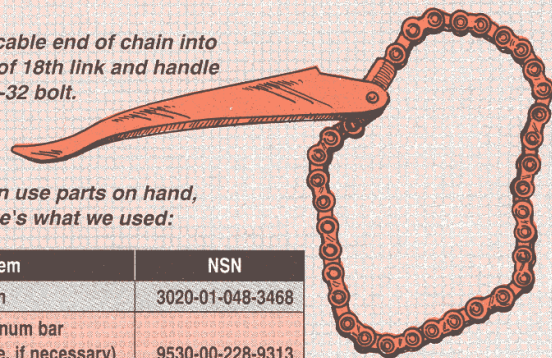
3/4-in round, aluminum stock



3. Groove bar stock for chain link.



4. Install cable end of chain into center of 18th link and handle with 10-32 bolt.



5. You can use parts on hand, but here's what we used:

Item	NSN
Roller chain	3020-01-048-3468
3/8-in aluminum bar (for handle, if necessary)	9530-00-228-9313
Machine bolt	5306-00-150-9083
Self-locking nut	5310-00-263-2862

Robert E. Bordner  
Ft Indiantown Gap, PA

FROM THE DESK OF THE Editor

Looks like you've got a hold on that sprocket problem. Good job!



# Remove the Countermeasure

**D**uring maintenance on the Apache's main rotor hub, AN/ALQ-144 countermeasure sets get damaged by dropped tools and big feet. The cost of replacing broken mirrors on the set shoots quickly into the thousands of dollars.

And it shouldn't happen.

The countermeasure is a secure piece of equipment. It should be removed after a flight, even before maintenance begins.

For those quick maintenance jobs between flights when removing the AN/ALQ-144 is not practical, cover the set with the fabric cover, NSN 5865-01-109-1800.

WE'D BETTER REMOVE THE COUNTERMEASURE SET BEFORE WE START MAINTENANCE.

Use the fabric cover

THERE'S NO TIME FOR THAT. WE'LL USE A COVER AND BE VERY CAREFUL.

REMOVE BEFORE FLIGHT

## No Drain, No Gain!

Dear Editor,

The 100-KW generator set, MEP-007B, does not have an AOAP sampling drain on its engine. That makes taking a good sample tough.

So we added bleeder valve, NSN 4820-01-120-4532. We took out the 7/16-in plug that's directly above the engine oil dipstick. It's shown as Item 28 of Fig 78 of TM 5-6115-600-24P. And we installed the valve with anti-seize tape.

John D. Howard  
Ft Bragg, NC

Remove plug and add bleeder valve

FROM THE DESK OF THE Editor

It looks like you've generated a great idea, John.



## Get Mount Modification Answers

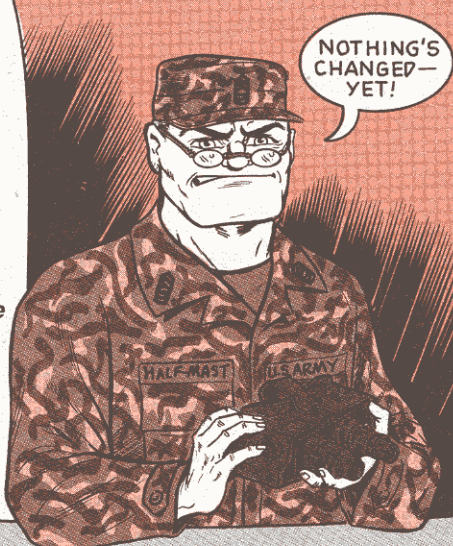
Dear Half-Mast,

Now that my AN/PVS-5 night vision goggles have been modified with the GM-6 mount, will there be a new NSN and LIN for the modified goggles?

When the face mask is removed and the GM-6 mount is installed, do the serial numbers change?

Will a new carrying case be fielded that will accommodate the power pack?

CW2 J. S.



Dear Mr. J. S.,

The NSN and LIN will stay the same, Sir. Even though the goggles were modified, they are still either the AN/PVS-5A, -5B or -5C.

The GM-6 mounting bracket has its own serial number. However, when you install the bracket on the goggles, it becomes part of the goggles.

There are no plans for a new carrying case. But keep an eye out for a modification to the present carrying case in the next TM 11-5855-238-23&P.

*Half-Mast*

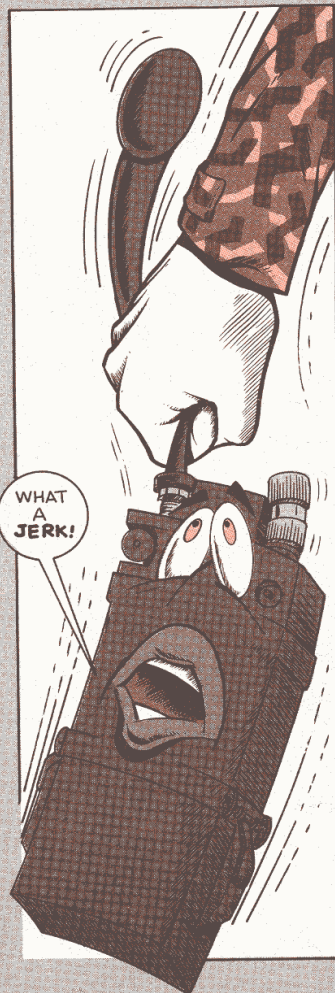
DGM . . .

## Keep PEB Ground Stud Tight

The ground stud to the Power Entrance Box (PEB) on the Digital Group Multiplexer (DGM) shelter gets loose from removing the grounding strap.

But there's a way to save the PEB. Send it to DS. They'll take off the back cover and replace the 9/16-in nut that holds the stud with a lock nut. That will keep the grounding stud in its place.





## Portable

Some AN/PRC-126 portable radio sets really take a beating. They suffer from bent antennas, cracked control panels, damaged connectors and more.

Here are some ways to protect your set:

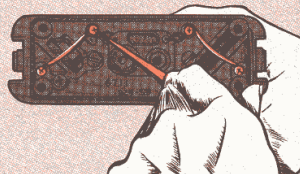
- ➔ Pick up or carry the radio by its body. If you grab the antenna instead of the radio body, you'll bend the antenna, crack the control panel or pull wires loose. Then your radio's not talking.



Same goes for the handset cord. It's not a handle. Never dangle the radio by the cord or you'll tear the cord loose.

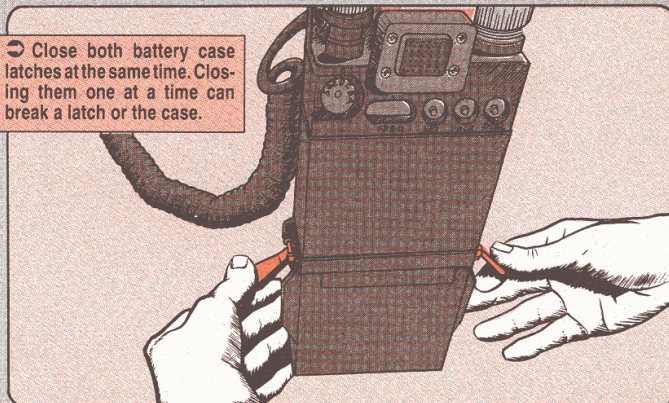
Clip the handset to your clothing or store it in your pocket or carrying case, NSN 5820-01-255-4068.

- ➔ Tighten the spring clips holding the shorting plug and squelch adjustment tool. Loose clips drop over the battery connectors and short out the battery when the case is closed.

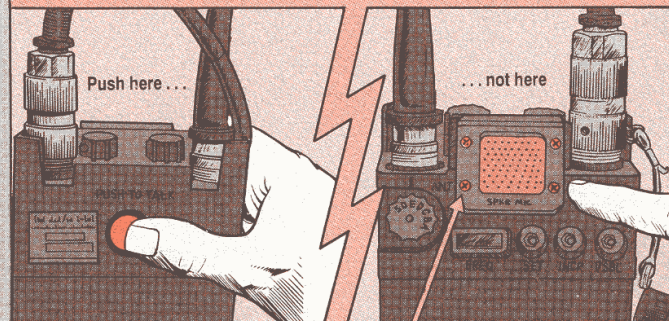


## PM Perks

- ➔ Close both battery case latches at the same time. Closing them one at a time can break a latch or the case.



- ➔ Keep your fingers off the speaker/microphone screen when working the PUSH TO TALK switch. Too much pressure will dent the screen and damage the microphone.



Snug up the four screws that hold the speaker/microphone screen to the RT. A loose screen lets in moisture, dust and dirt.

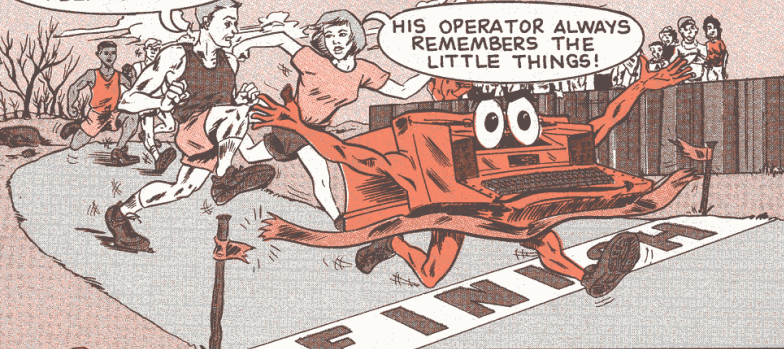
- ➔ Keep dirt and moisture out of the audio connector by using dust cover, NSN 5340-01-276-5783.



HOW DOES HE  
KEEP RUNNING?

# Remember the Little Things

HIS OPERATOR ALWAYS  
REMEMBERS THE  
LITTLE THINGS!



There are some things you shouldn't forget—your spouse's birthday, your wedding anniversary, the income tax deadline—to name a few.

Something an AN/UGC-74 teletype-writer operator shouldn't forget is to pay attention to the little things that keep his machine up and running:

- Use a light touch when you tap out your message on the keyboard keys. Hitting them hard will bust a key, and a busted key means replacing the whole keyboard.

Use a light touch on keys

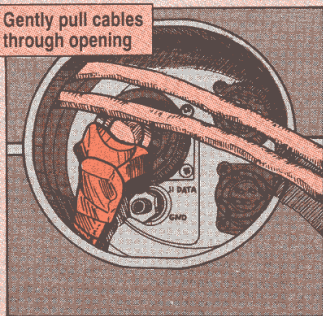


- Be careful when you push the terminal back into the case after you've switched settings or replaced paper. The

connector cables at the back of the terminal get crimped, cut or broken when the terminal is carelessly pushed into the case.

To make sure your cables don't get hurt, reach in the back and gently pull the cables through the opening before pushing the terminal into the case.

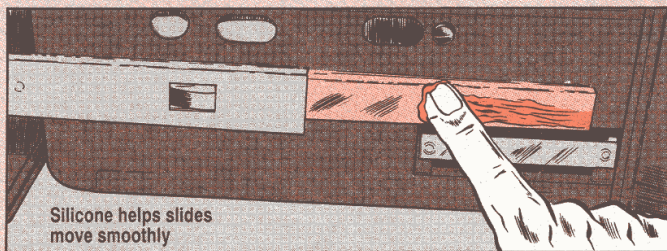
Gently pull cables  
through opening



You can give the cables extra protection by wrapping them with insulation tape, NSN 5970-00-644-3167.

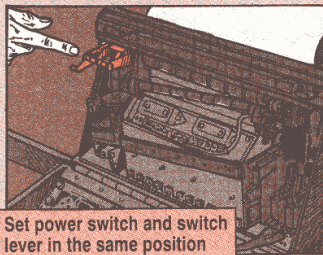
- Check the slides for wear. If the slides are worn, the ball bearings fall out.

If the terminal sticks when you slide it out of the case, clean the inside of the terminal case like it says in Table 2-4 of TM 11-5815-602-10-1 (Mar 87). Put a little silicone, NSN 6850-00-880-7616, on the slides to keep them moving smoothly.



- Make sure the power is OFF when you're changing switch settings. The driver card module burns out if you keep the power ON.

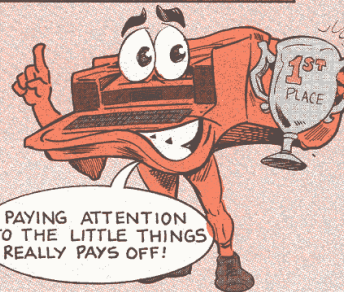
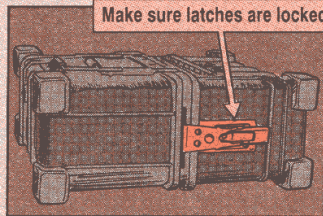
Be careful to set the power switch the same as the switch lever when you close the dust cover. The yoke on the toggle switch can break if the switches are not set the same.



When you replace the cover, hold the switch in the position—ON or OFF—in which the terminal is operating.

- Double-check to make sure the case latches are firmly fastened when you go to the field. One sharp turn will cause an unlatched terminal to fall to the floor.

Make sure latches are locked





# Keep Relief Valves Open

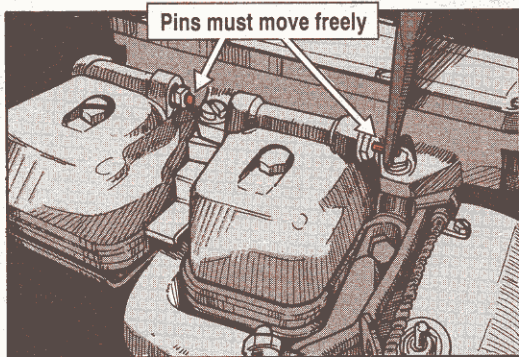
HEY,  
WHAT  
GIVES?

MY PINS ARE STUCK  
AND MY BACK PRESSURE'S  
BUILDING UP! I  
NEED RELIEF!

**T**he engine valve cover's relief valves on your MEP-015A generator have to be free. During operation, each relief valve's spring-loaded pin moves in and out to vent internal engine pressure.

If a pin sticks, back-pressure builds up and blows oil past the valve cover gasket. Then DS has to replace the gasket.

Each time you do PMCS, pull the pins. They should pull out freely and spring back when you release them. If a pin sticks or does not spring back, report it.

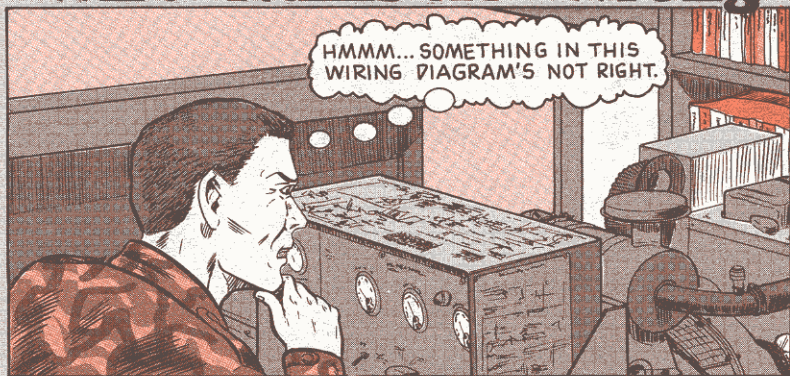


## Generator Fuel Level Switch

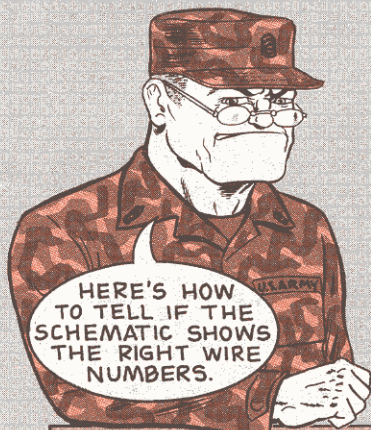
The replacement fuel level switch, NSN 5930-00-405-6153, for your MEP-004A, -103A, -113A, 15-KW DED generators has either one or two floats, depending on the manufacturer. Both switches work on the generators.



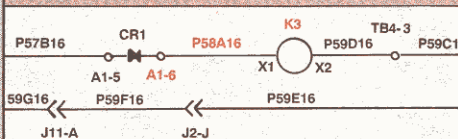
# Wire Numbers Wrong



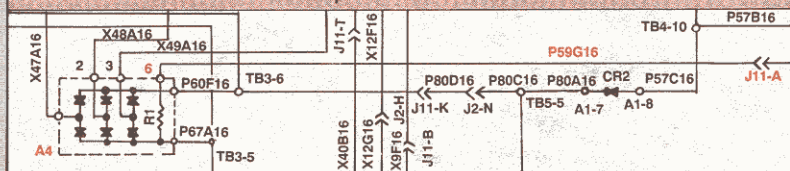
**S**ome 5- and 10-KW generators, NSN 6115-00-465-1044 (MEP-002A) and NSN 6115-00-465-1030 (MEP-003A), have schematic diagram plates with two wires numbered wrong.



- Find the K3 crank relay and the A1-6 connection on the schematic diagram plate. The wire running between these points is P58A16.



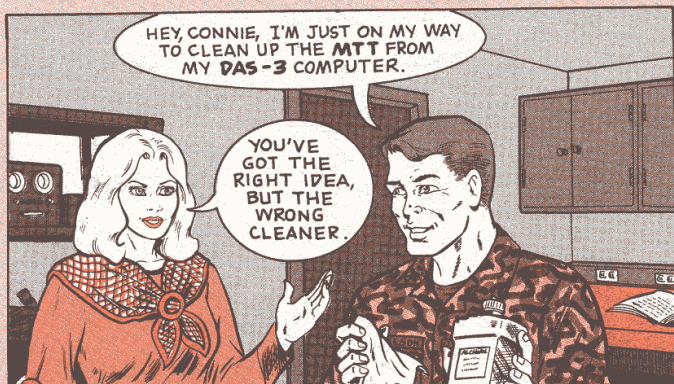
- Find the J11-A junction and connection 6 on bridge assembly A4 on the plate. Wire P59G16 runs between these points.



If these wires are labeled with any other numbers, your schematic is wrong. Order the correct plate for both generator sets with NSN 9905-01-047-8351.



# MTT Needs a Clean Sweep

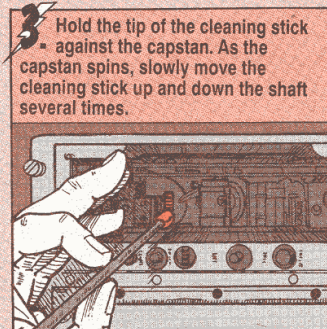
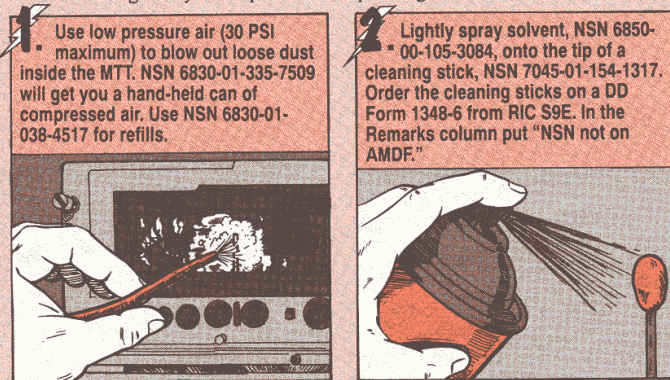


**R**ight in the middle of running a program tape is no time to find out your magnetic tape transport (MTT) is dirty.

Dust and debris that collect inside the MTT—especially on the capstan—can mark up the tape and give your system a bad “read” and wrong data.

Using the wrong cleaner is even worse. Cleaners like isopropyl alcohol will melt the plastic rings on the capstan. The bare metal that's left will cut the tape.

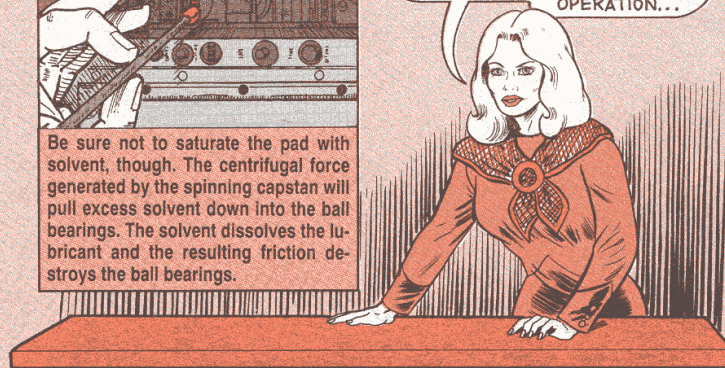
Here's the right way to keep that MTT sparkling:



Be sure not to saturate the pad with solvent, though. The centrifugal force generated by the spinning capstan will pull excess solvent down into the ball bearings. The solvent dissolves the lubricant and the resulting friction destroys the ball bearings.

## Cartridge Care

OF COURSE, IT DOESN'T DO MUCH GOOD TO HAVE A CLEAN MTT IF YOU DON'T TAKE CARE OF THE MAGNETIC TAPE CARTRIDGES. HERE ARE SOME DOs AND DON'Ts TO PROVIDE TROUBLE-FREE TAPE CARTRIDGE OPERATION...



### DO

- ⚡ Store in proper containers
- ⚡ Handle gently
- ⚡ Keep fingers off the tape

### DON'T

- ⚡ Expose to direct sunlight or magnetic fields
- ⚡ Affix any stickers or labels
- ⚡ File, grease or lubricate

Never try to jerk or pry loose a cartridge that's stuck in the MTT. If you can't pull the cassette out gently, send the MTT to depot for repair.

Never try to make the magnetic tape cartridges (MTC) fit better by filing or lubricating the cartridge. You'll only succeed in damaging the MTT and MTC. If the cassette doesn't fit well, there's a problem with the MTT. Send it through your support to depot for repair.



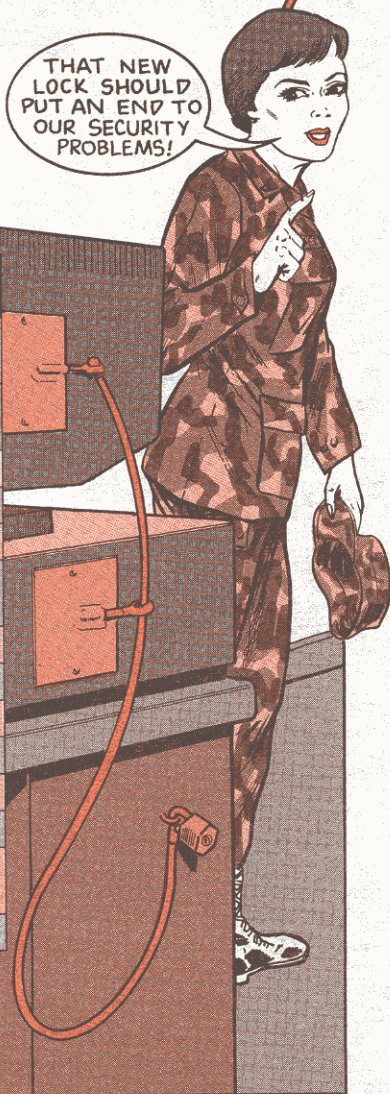
# Lock Down Computer Security

If you need to secure your PC, order a personal computer security locking kit. Each kit comes with two security pads, a 5-ft cable with ball and eyelet fittings, a keyed lock, two keys, a cleaning pad and installation instructions.

Here's what's available:

Computer	Part Number	Price
Compaq DeskPro (all models)	K6665-2	\$24.95
Compaq Portable & Portable III	K6667-1	\$24.95
IBM Portable P70	K6667-1	\$24.95
IBM PC	K6665-2	\$24.95
IBM PC (Model XT & AT)	K6665-2	\$24.95
IBM PS/2 (Model 30, 50, 70, 30/286 & 55SX)	K6665-2	\$24.95
Laptop Notebook (black)	K5727	\$24.95
Laptop Notebook (putty)	K5728	\$24.95
Macintosh Mac Plus	K5716-2	\$24.95
Macintosh LC	K5709-2	\$39.95
Macintosh Classic	K5711-2	\$29.95
Macintosh SE & SE/30	K5711-2	\$29.95
Macintosh II, IIfx, IIfx, IIsi, IIfx & IIfx	K5714-2	\$39.95
Zenith 248, 249 & 386	K6665-2	\$29.95

Order the kit you need on a DD Form 1348-6 using CAGE 3T092 and part number from RIC S9I.





# Alcohol Rub

**O**perators, use isopropyl alcohol, NSN 6505-00-655-8366, when you clean the outside of computer components such as tape drives, CPUs, keyboards and printers.

That old standby, trichlorotrifluoroethane, is hazardous to the environment. Don't use it.

Here are a few things to remember when you clean with isopropyl alcohol:

I'M FLAMMABLE,  
KEEP HEAT,  
SPARKS  
AND OPEN  
FLAME  
AWAY  
FROM  
ME!

USE ME ONLY IN  
A WELL VENTILATED  
AREA.

NEVER  
BREATHE  
THE  
VAPORS!

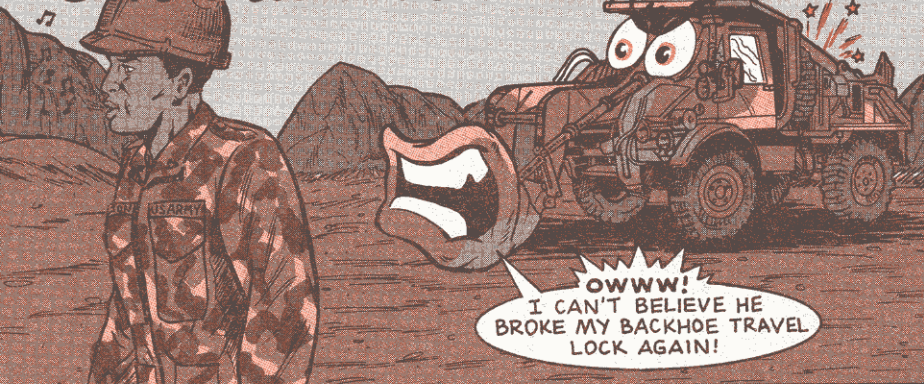
I'M ROUGH ON  
YOUR SKIN,  
SO WEAR  
RUBBER  
GLOVES FOR  
PROTECTION.

I'M A DEGREASER, SO NEVER USE  
ME ON BEARINGS OR  
MOTORS  
BECAUSE  
I'LL REMOVE  
THE  
LUBRICANT.



SEE...

# Give Backhoe Lock a Break

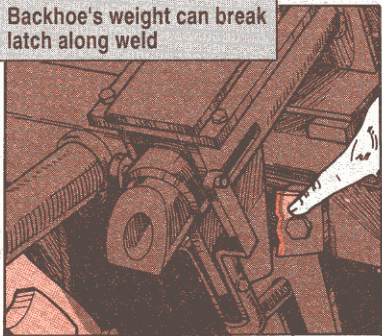


**OWWW!**  
I CAN'T BELIEVE HE  
BROKE MY BACKHOE TRAVEL  
LOCK AGAIN!

**S**EEing is believing when it comes to damaging the old style backhoe travel lock on your small emplacement excavator. And, unless you're careful, damage is exactly what you'll see.

Once the backhoe is retracted to the travel lock position, make sure you tie it down following the procedures in TM 5-2420-224-10. If you forget, the backhoe bangs up and down during transport. Eventually, the strain is enough to break the travel lock bracket along its welds.

Backhoe's weight can break latch along weld



Never try to repair a broken lock. Replace it with the new wrap-around lock. NSN 3815-01-285-2300 gets you the new travel lock with its mounting hardware, bail and pail pad, latch and installation instructions.

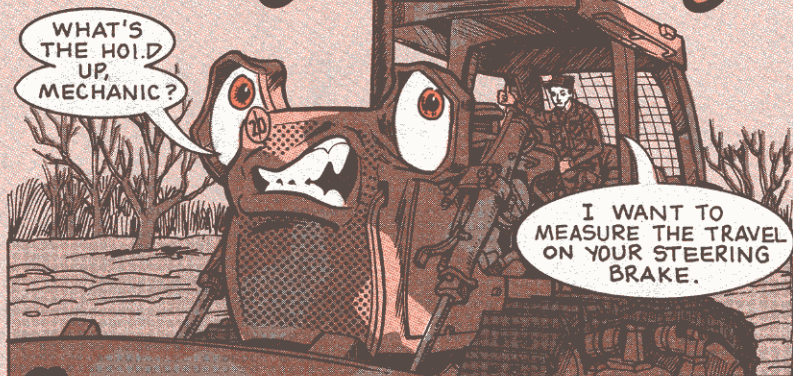
IF YOU'D LIKE A SET OF BACK ISSUES OF PS MAGAZINE (CLOSE TO THREE YEARS' WORTH ON-HAND) OR A SINGLE ISSUE YOU MISSED, WRITE TO...

PS, The Preventive Maintenance Monthly  
ATTN: AMXMD-PS  
Lexington, KY 40511-5101





# Safe Traveling



**M**echanics, a tractor's steering brake pedals are supposed to travel some . . . but not too far. Too much pedal travel and the steering brakes are gone!

So, play it safe and adjust the steering clutch brakes if the pedal travels more than  $6\frac{1}{4}$  inches with the parking brake engaged. Measure at the center of the pedals.

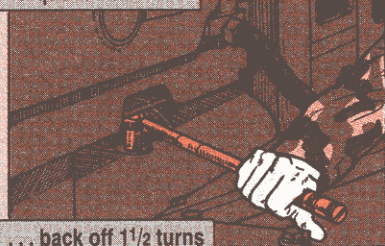


Every 250 service hours, check and adjust the brakes like so:

✓ Remove the guard and the brake adjusting screw cover.

✓ Turn the adjusting screw clockwise with a torque wrench until you get a reading of 15 lb-ft.

Torque to 15 lb-ft . . .



✓ Back off the screw  $1\frac{1}{2}$  turns (9 clicks) to get the right amount of space between the brake lining and the brake drum.

✓ Adjust the pedal linkage. There should be  $17\frac{5}{8}$  to  $17\frac{7}{8}$  inches between the brake pedal face and the front of the seat support. Repeat the same procedure for the other brake pedal.

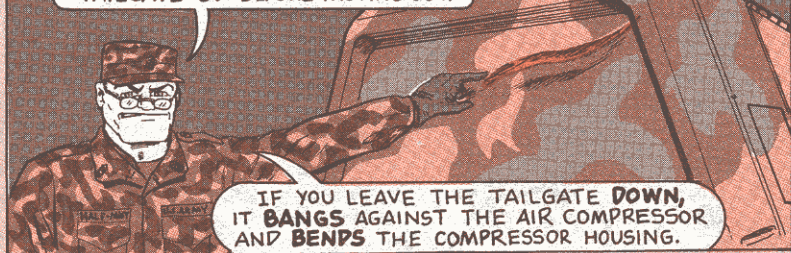
✓ Put the cover and guard back on.  
✓ If the cover gasket's damaged, replace it.



## GET LONGER LUNETTE

The lunette on the trailers of the 250 CFM air compressors is not long enough to keep the 5-ton truck and the air compressor apart when making turns.

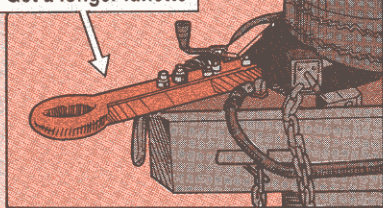
DRIVERS, ALWAYS REMEMBER TO PUT YOUR TRUCK'S  
TAILGATE UP BEFORE MOVING OUT.



Recently an MWO came out to replace the short lunette with a longer one.

Look for an MWO kit plate on your trailer. If lunette kit, MWO 5-4310-452-20-1 (Mar 91), has not been installed, see your TACOM LAR. He'll help you get your trailer scheduled for the modification.

Get a longer lunette

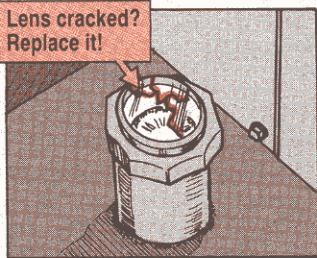


## 400,000 BTU Duct-type Heater...

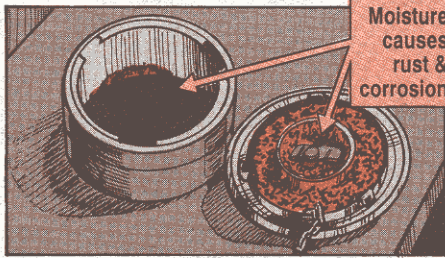
### Replace Cracked Gauge

When the lens on the fuel gauge of your 400,000 BTU duct-type heater gets cracked, moisture sneaks in and ruins the fuel tank.

Lens cracked?  
Replace it!



Moisture  
causes  
rust &  
corrosion



Check the fuel gauge on your heater. If the lens is cracked, order a new gauge with NSN 6680-01-169-5990.



# Shields for Brakes



The 621B scraper works hard in difficult conditions. But little things make big problems for it. Rocks and small stones get between its brake drums and shoes, causing damage.

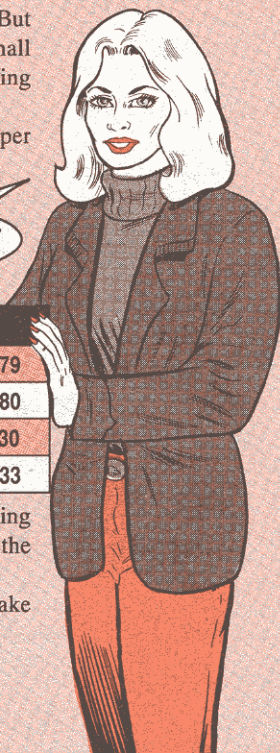
You mechanics can help keep this hard-working scraper scraping dirt by adding a shield to each wheel.

HERE'S WHAT YOU NEED FOR EACH AXLE...

Item	Qty	NSN
Brake shield, lower	2 ea	2530-01-063-2979
Brake shield, upper	2 ea	2530-01-063-2980
Bolt	12 ea	5306-01-110-1130
Washer	12 ea	5310-01-061-8633

Never put brake shields on a scraper that will be working in fine sand, though. Fine sand gets trapped behind the shield and wears out the brake shoes and drum.

Take off the brake shields to do the 250-hour brake inspection, but put them back on when you finish.



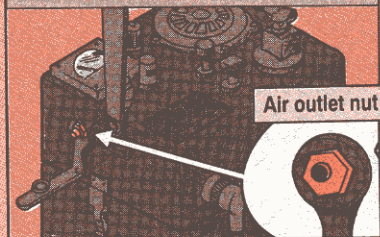


# A Little Help for NBC NCOs



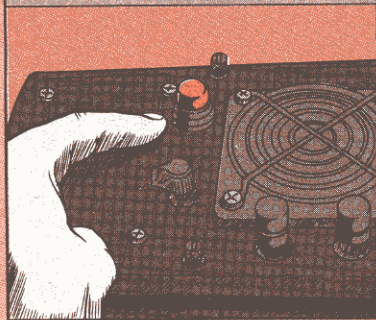
HERE ARE A FEW QUICK TIPS TO MAKE TAKING CARE OF M8A1 ALARMS EASIER, NBC NCOs...

- 1.** Tighten the plastic air outlet nut hand tight... and stop. Forcing the nut tighter strips the threads or cracks the nut. A bad nut can't hold the air outlet cap and a replacement's hard to get.



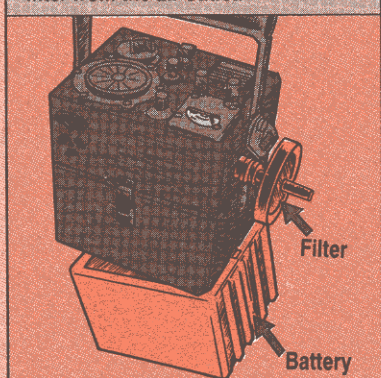
Air outlet nut

- 2.** When the M42A1 ALARM-RED light won't light, change the bulb, NSN 6240-00-155-8706, before you do anything else. That's often the problem and it saves a trip to support.



You don't need your commo people for telephone cable. Order your own cable, NSN 6145-01-155-4258.

- 3.** Remove the air outlet filter for storage, too. It gets snapped off and it's difficult to remove the rest of the filter from the air outlet.



Filter

Battery

- 4.** Remove the M42A1 alarm batteries and the BA-3517/U battery cable for storage. Otherwise, the M42A1 batteries can swell and burst. The BA-3517/U cable often gets jerked off if it's left connected.

When you send M8A1s back to the field, warn your unit to support the bottom of the BA-3517/U battery if they're carrying it attached to the M8A1. The battery latches do not hold well and the battery can smash a foot if it falls.



# Safe Filter Disposal

**Y**ou can't just pitch outlet filters, NBC NCOs. They have traces of radiation that make them dangerous if not handled right.

When the air flow drops below the green band on the flowmeter, replace the filter safely like this:

Wear disposable gloves, NSN 8415-00-682-6786, every time you handle the filter. Keep your hands away from your mouth. Wash your hands with soap and water when you're finished.



Put your gloves in the bag with the filter. Seal the bag with tape, NSN 7510-00-802-8311.



Mark the bag RADIOACTIVE WASTE AM-241 LESS THAN 0.005 MICROCURIES.

Put the bag in a metal container marked with a radioactive warning label. NSN 7240-00-634-0001 gets a 3-gal container. If your local radiation protection officer does not have a supply of warning labels, they'll have to be local purchased. There is no NSN.



Place a doubled plastic shipping bag, NSN 8105-00-989-2376, over the filter to unscrew it.



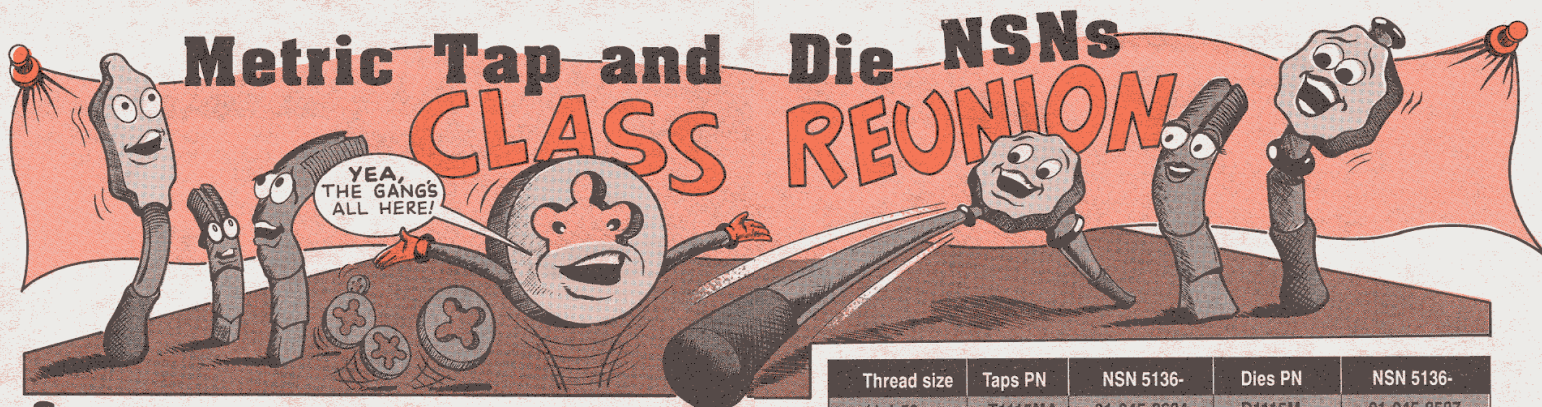
ON a DA Form 2765-1 or DD Form 1348-1 (turn-in document), write M8A1 OUTLET FILTER— RADIOACTIVE. List the gloves as LABORATORY WASTE.

Turn in the container and form to your local radiation protection officer.

Until turn-in, store the container in your unit's hazardous waste storage area.

See Para 4-13 in TM 3-6665-312-12&P (Mar 85) for more info.





**S**upply Catalog 4910-95-CL-A72 doesn't list all the taps and dies for metric set, NSN 5136-01-119-0005, in the No. 2 Common shop set.

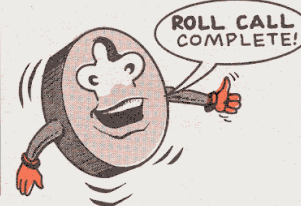
Here's a lowdown of all the taps and dies in the set, keyed to the manufacturer's part numbers that are stamped on the taps and dies.

Thread size	Taps PN	NSN 5136-	Dies PN	NSN 5136-
3-0.50mm	T305M	01-294-3896*	D305M	none*
4-0.50mm	T407M	01-045-8592	D407MA	01-046-4954
4-0.75mm	T4075M	01-045-8593	D4075M	01-046-4956
5-0.80mm	T508M	01-045-8594	D508MA	01-045-8577
5-0.90mm	T509M	01-045-8595	D509M	01-045-8578
6-1.00mm	T610M	01-045-8596	D610MA	01-045-8579
7-1.00mm	T710M	01-045-8597	D710M	01-045-8580
8-1.00mm	T810M	01-045-8598	D810M	01-045-8581
8-1.20mm	T812M	01-045-8599	D812M	01-045-8582
9-1.00mm	T910M	01-045-8600	D910M	01-045-8583
9-1.20mm	T912M	01-045-8601	D912M	01-045-8584
10-1.20mm	T1012M	01-045-8602	D1012M	01-045-8585
10-1.50mm	T1015M	01-045-8603	D1015M	01-045-8586

\* The NSN for the 3-0.50mm tap is not on the AMDF. Order it using the NSN on a DD Form 1348-6 from RIC GSA. There's no NSN for that size die, so order using CAGE 55719 and PN D305M on a 1348-6, too.

Thread size	Taps PN	NSN 5136-	Dies PN	NSN 5136-
11-1.50mm	T1115MA	01-045-8604	D1115M	01-045-8587
12-1.20mm	T1212M	01-045-8605	D1212M	01-045-8588
12-1.50mm	T1215M	01-045-8606	D1215M	01-045-8589
12-1.70mm	T1217M	01-045-8607	D1217M	01-045-8590
14-1.20mm	T1412M	01-118-4055	DR1412M	01-117-0463
14-1.50mm	T1415M	01-113-1566	DR1415M	01-113-8071
14-2.00mm	T1420M	01-113-1567	DR1420M	01-120-0612
16-1.50mm	T1615M	01-113-1568	DR1615M	01-113-4346
16-2.00mm	T1620M	01-113-1569	DR1620M	01-115-1143
18-2.50mm	T1825M	01-114-1522	DR1825M	01-113-9580
20-2.50mm	T2025M	01-119-2515	DR2025M	01-113-4348
22-1.50mm	T2215M	01-113-1571	DR2215M	01-119-0008
24-2.00mm	T2420M	01-113-1572	DR2420M	01-113-4349
24-3.00mm	T2430M	00-232-1959	DR2430M	01-113-8070

Die Stocks		Tap Wrenches	
NSN 5136-	PN	NSN 5136-	PN
01-028-5221	TD3	01-109-4788	TD4
01-028-5222	TD10	01-028-7078	TD50
01-116-1650	TD35	00-277-4064	TD88
01-115-4739	TD40	00-277-4065	TD98A



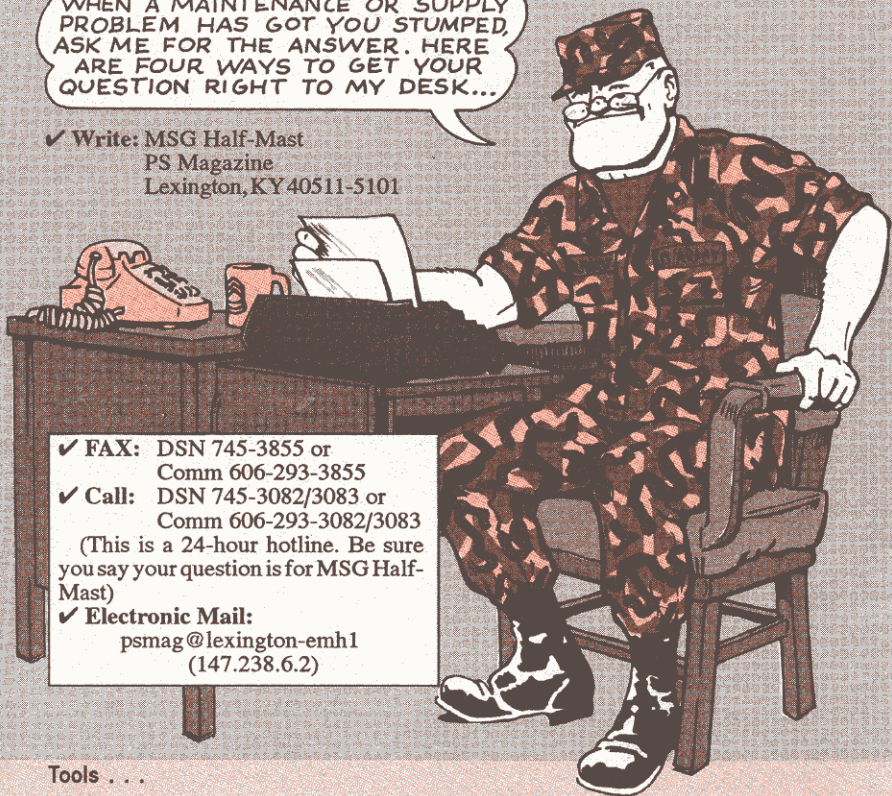


# Stumped by a Problem?

WHEN A MAINTENANCE OR SUPPLY PROBLEM HAS GOT YOU STUMPED, ASK ME FOR THE ANSWER. HERE ARE FOUR WAYS TO GET YOUR QUESTION RIGHT TO MY DESK...

✓ **Write:** MSG Half-Mast  
PS Magazine  
Lexington, KY 40511-5101

- ✓ **FAX:** DSN 745-3855 or  
Comm 606-293-3855
- ✓ **Call:** DSN 745-3082/3083 or  
Comm 606-293-3082/3083  
(This is a 24-hour hotline. Be sure  
you say your question is for MSG Half-  
Mast)
- ✓ **Electronic Mail:**  
psmag@lexington-emh1  
(147.238.6.2)



Tools . . .

## Socket Set NSNs

Dear Half-Mast,  
I need to order some components for the 3/8-in square drive socket wrench set, NSN 5120-00-322-6231. But I can't find the NSNs.

SSG A.A.J.

Dear Sergeant A.A.J.,

No problem. You'll find the socket wrench components in SC 4910-95-CL-A74 for the No. 1 Common tool set, and in SC 4910-95-CL-A72 for the No. 2 Common tool set.

*Half-Mast*





## Connie's Briefs

### CUCV Combines Pipes

Early and late model CUCVs (except M1009s) now have some common exhaust pipes. Use only NSN 2990-01-225-1029 for Item 1 of Fig 21 in TM 9-2320-289-20P. Use only NSN 2990-01-225-1028 for Item 11. Make a note until your TM is updated.

### M1009 CUCV Calipers ID'd

You can't tell the left from the right on the M1009 brake calipers shown in Fig 88 of TM 9-2320-289-20P? Make this note: Item 2 is for the left side, Item 7 is for the right.

### HEMTT Horn Relay NSN

To get the HEMTT's 24-volt horn relay switch, use NSN 5945-01-132-4200. The NSN shown for Item 14, Fig 40, of TM 9-2320-279-20P gets a 12-volt relay switch.

### M353 Trailer O-ring NSN

NSN 5330-00-090-2128 gets the O-ring packing for the air line coupling on the M353 3 1/2-ton trailer. The NSN is missing from the TM.

### HEMTT Battery Gage NSN

The NSN for the battery voltage gauge indicator that's shown as Item 17, Fig 36, in TM 9-2320-279-20P has been changed to NSN 6625-01-102-7599.

### HEMTT Headlight NSN

Get a headlight for your HEMTT with NSN 6240-00-966-3831. The headlight in the -20 TM is no longer available.

### M915 Tool Bag NSN

NSN 5140-00-473-6256 gets the tool bag that fits under the passenger seat of your tractor truck. The NSN shown in the -10 TM is wrong.

### Connector Cover Corrections

TM 11-5820-890-20P lists the wrong part numbers for the SINCGARS radio connector covers. Here's the right info:

Figure	Item	PN	NSN
23N	Item 9, rubber dust cap	3132871-2	5340-01-346-4291
58	Item 13, metal connector cover	A3013083-2	5935-01-228-0709

Distribution: To be distributed in accordance with DA Form 12-34-E, Block 0312, for TB-43-Series

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# PMCS

## THE TRUCKER'S DOZEN

