

Issue 478

PS

September
1992

THE PREVENTIVE MAINTENANCE MONTHLY

TB 43-PS-478

Has your
buddy read
this issue?
Pass it along!

EARTH
WILL SOON
BE OURS!

WE'RE
READY TO
LAUNCH THE
PODS! OUR ANTI-PM
MISSION WILL
BEGIN!

INVASION OF THE
PM SNATCHERS
...See Page 27

Approved For Public Release;
Distribution is Unlimited

MAIT CAN HELP

THEY HAVE
THE LATEST ON THE
NEW UNIT LEVEL
MAINTENANCE
STANDARDS!

The Maintenance Assistance Instruction Team (MAIT) is the first place to turn with your maintenance problems.

MAIT is right on post and ready to help solve problems with:

- ★ Maintenance
- ★ Publications
- ★ TAMMS records
- ★ Property Books
- ★ Prescribed Load Lists

Team members will not only offer one-on-one help, but will come to your unit and teach classes on subjects like PMCS or the Army Oil Analysis Program.

But they can't help if you don't call. See your base phone directory for the number of your MAIT.



TB 43-PS-478, 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, or questions or comments on material published in PS. Just write to:

MSG Hal-MAst
The Preventive Maintenance Monthly
Lexington, KY 40511-5101

By Order of the Secretary of the Army

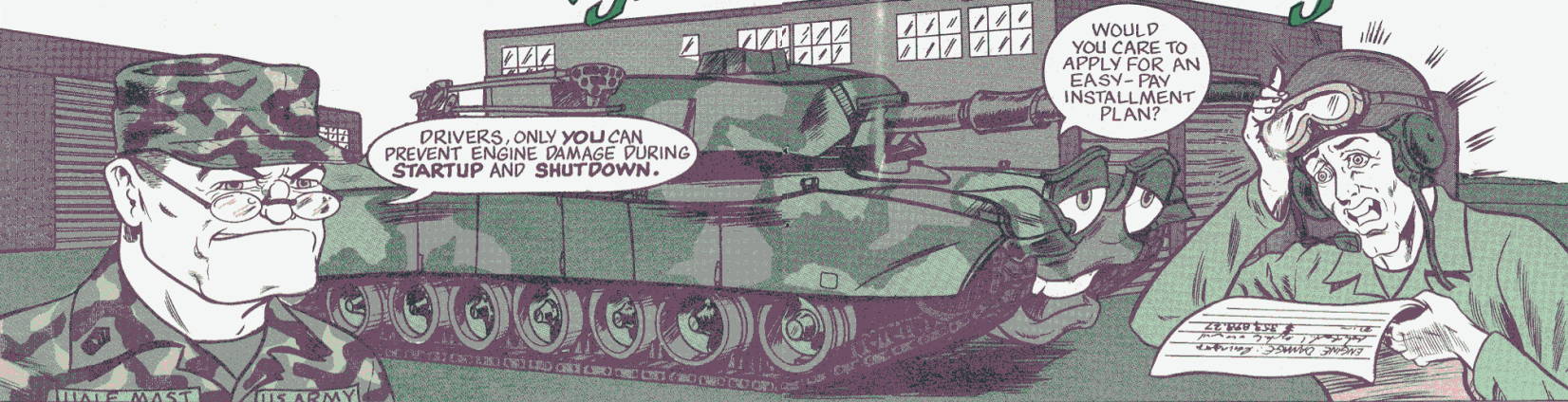
GORDON R. SULLIVAN
General, United States Army Chief of Staff

Official: *Milton H. Hamilton*

MILTON H. HAMILTON
Administrative Assistant to the Secretary of the Army
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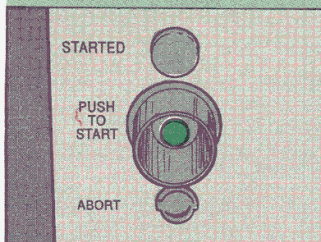
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Five Rights Prevent a Wrong

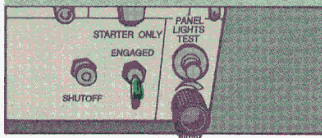


1. First of all, forget the combat start information in TM 9-2350-255-BD, Battlefield Damage Assessment and Repair. That info is for use only in an emergency or in real combat when directed by your CO.

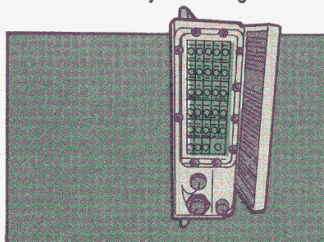
2. Never press the START button longer than one second. And don't push the button more than once, or hold it down until you get a start or an abort.



3. Never use the STARTER ONLY switch before or while pressing the start button.



4. Never turn off any circuit breaker once the start cycle has begun.



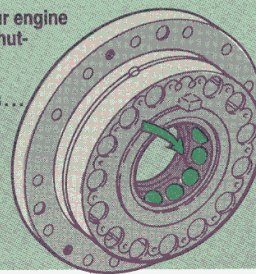
The last three actions could put too much fuel into the engine. The extra fuel can't burn in a controlled way—it explodes. That causes internal damage that will eventually ruin the engine.

5. Give the engine at least TWO MINUTES at idle to cool off before shutdown. Let it idle while you check out gauges, switches and warning lights.

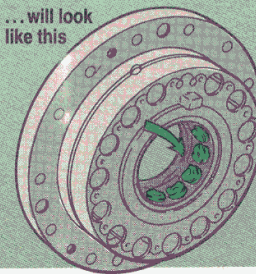
That will prevent heat soak-back, which cracks turbine rotors and clogs oil passages. The cracks will ruin the rear module.

Neglecting the cool-down period will also cause the engine oil to boil, which cokes the bearings and obstructs the oil ports. Bearing failure can ruin an entire engine.

Cool your engine before shut-down or these bearings...



...will look like this



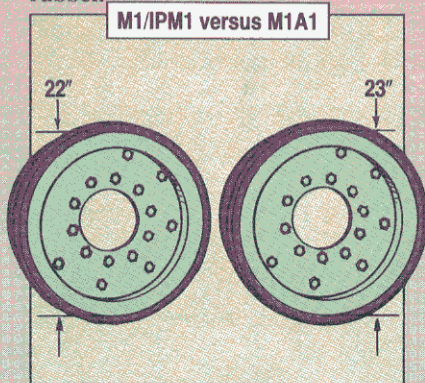
Mix and Match Roadwheels

Hey, tankers! Got some extra M1A1 roadwheels, but not sure you can use them on your M1 or IPM1 tank?

It's okay to mix wheels from the M1/IPM1 with those from the -A1 model as long as you follow two simple rules:

1 The wheels must be used in pairs. That means there must be two -A1 roadwheels on a roadarm or two M1/IPM1 roadwheels on a roadarm. Never use one of each on the same roadarm.

Some quick work with a tape measure lets you tell the two apart. The diameter of the M1/IPM1 roadwheel **with no rubber** is 22 inches. The diameter of the M1A1 roadwheel is 23 inches **with no rubber**.



2 The mix and match can only take place on M1/IPM1 tanks. Never place M1/IPM1 roadwheels on an M1A1 tank. They're not built to take the extra weight.

There are still some aluminum roadwheels in the supply system, too. They can be mixed with steel roadwheels as long as you follow the two rules above. Never — under any circumstances — use an aluminum wheel on an M1A1 tank. The weight is just too much.



Check Track Shoe Bushings

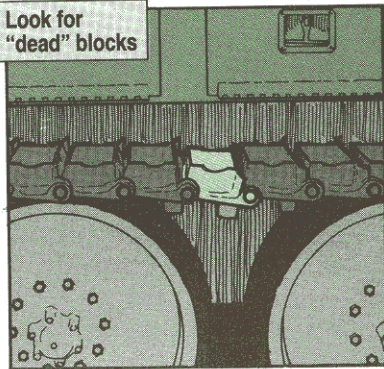


The -20 TMs for M110A2s and M578s are pretty thorough on track care, but both come up short on gauging shoe bushing wear. Knowing when a track shoe bushing is shot can be the difference between smooth operation and a thrown track.

There's just no substitute for a thorough visual check of the shoe bushings. Ask yourself these questions as you take a look:

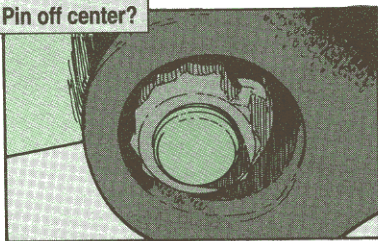
- Q.** Do any of the shoes droop? "Dead" shoes result when the bushings wear out on one or more sides, allowing them to sag.

Look for
"dead" blocks



- Q.** Is the track pin off center? That's a sure sign of a worn bushing and will eventually result in at least a "dead" shoe.

Pin off center?



- Q.** Is the pin touching the shoe wall?

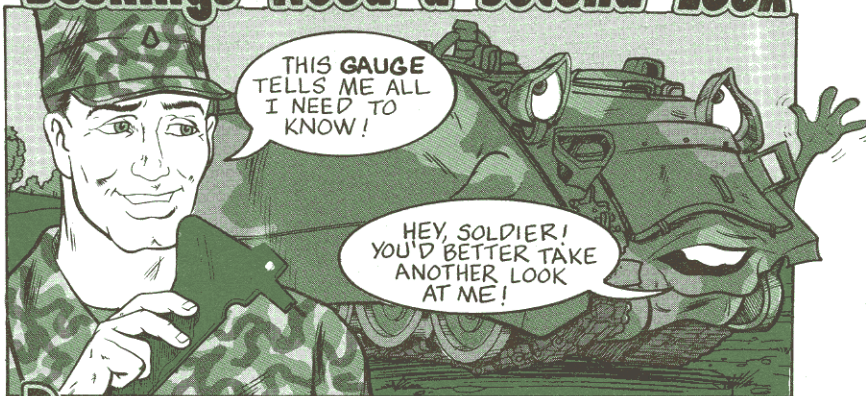
Replace the shoe!



If you answered "yes" to any of these questions, replace the track shoe.

If you're using the shoe bushing wear gauge shown on Page 3-9 and 3-10 of TM 9-2530-200-24, remember: The gauge is not 100-percent effective and should only be used as a guide.

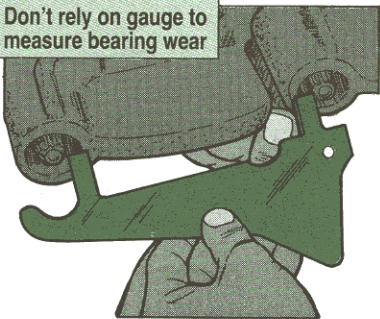
Bushings Need a Second Look



Do not rely on your carrier's track and sprocket gauge, NSN 5220-01-041-9920, to measure bushing wear. Sometimes the gauge gives you a GO condition for bushing wear, even though pin nuts are against the bushing bores. Enough rubbing could cause track failure and loss of steering.

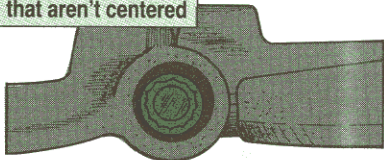
Instead, take a second look for pin nuts that are not centered in the bushing bore. Any shoe having a pin nut that's not centered should be watched carefully.

Don't rely on gauge to measure bearing wear



If the pin nut is touching the inside surface of the bushing bore, replace the track shoe.

Look for pin nuts that aren't centered



The track and sprocket gauge is still a quick way for measuring sprocket wear and track tension, just like it says in your carrier's -10 TM.

Replace shoe if pin nut is touching the bore



The track and sprocket gauge is part of your carrier's BII.

Hands Off Pivot Steer

STAY CLEAR OF THE
PIVOT STEERING ON YOUR CARRIERS.
KEEP IT CONNECTED, BUT KEEP
YOUR HANDS OFF!

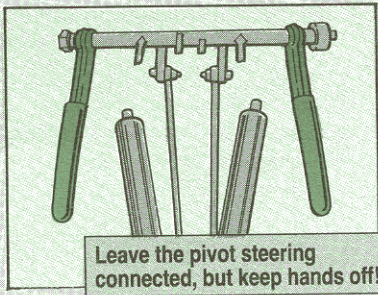
HERE'S WHY...



- ★ Since the carriers no longer have swim capability, you don't need pivot steering for moving around in the water. That's always been the main use of pivot steering.
- ★ U-joints and the transmission case break when pivot steering is used at more than 15 MPH or in any drive range other than 1-2. Even at speeds under 15 MPH, using pivot steering tears up U-joints, the transmission and differential.
- ★ To prevent damage and injuries, some mechanics disconnect the pivot steering controls. That's no good, because a loose horizontal rod can jam the

steering laterals. Jammed laterals mean no control over the vehicle.

So-o-o-o, do yourself and others a big favor: Leave the pivot steering connected, then leave it alone.






Leave the pivot steering
connected, but keep hands off!

Prepare for Winter Now!

A bad igniter or glow plug is the most common problem with combat vehicle personnel heaters. Replace bad ones now before Old Man Winter blows into town.

Here's a handy cross-reference of igniter/glow plug to heater model:



Igniter/Glow Plug NSN	Heater	
4520-00-217-5782	Stewart-Warner 10560C, 10560G, 10560M, 10560M24B1	
2540-01-115-1805 2540-01-167-7248	Hupp MF510B Hupp MF510C, MF60A-24V, MF60B-24V	
2540-12-167-3599	ESPAR V7S	

Hupp Personnel Heaters . . .

Screw Head Interference

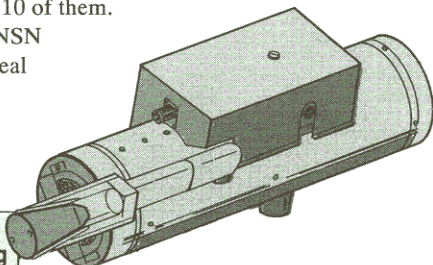
If you've had trouble installing a Hupp MF510B or C personnel heater in your combat vehicle because the screw heads are too large, here's good news:

Replace all those hex head screws with flat head screws, NSN 5305-00-984-7363. You'll probably need 10 of them.

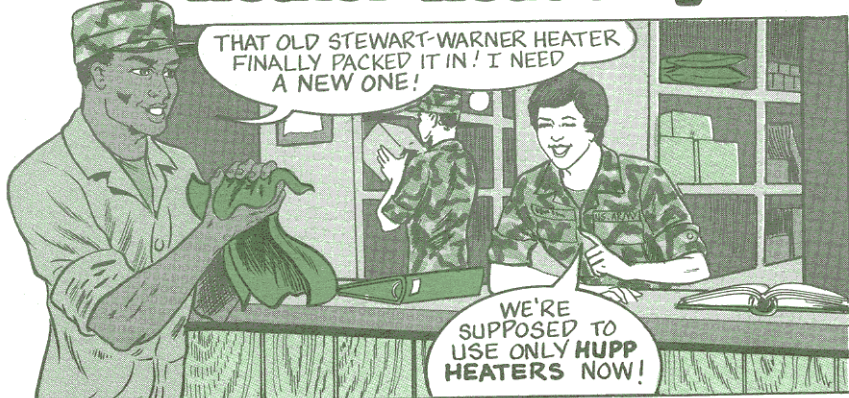
You'll need six #10 seal washers, NSN 5310-00-655-7219, and four 1/4-in seal washers, NSN 5310-00-680-7296.

There's no need to replace all the screws unless they present a problem with mounting.

Replace screws if they interfere with mounting



Heater Heads-up



Your -20PTM gives you an option of using either a Hupp or a Stewart-Warner heater. But that's wrong! Use only the Hupp model MF510C or MF60B heater, NSN 2540-01-162-3834, in your FAASV. If your vehicle has a Stewart-Warner heater, replace it with a Hupp heater.

M109-Series Howitzers and M992 FAASV . . .

Personnel Heater Decals

Warning decals on the personnel heater and control box assembly for M109-series howitzers and M992 FAASV are now available. Here they are:



Take a clean rag and wipe the surface with general purpose cleaner, NSN 7930-00-515-2477, and let it dry before putting the decals on.

PM with a Vengeance

HERE ARE A FEW BITS AND PIECES TO HELP YOU COMPLETE THE PM JOB ON YOUR AVENGER.



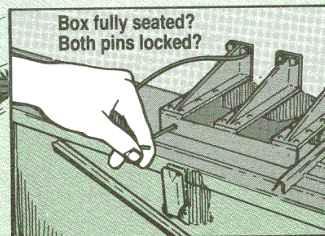
Clearance

The Avenger can traverse up to 60° per second. That means a lot of damage can be done quickly if you don't look before you traverse. Look for:

- **People.**
 - **Tools on the HMMWV fender.**
- There's very little clearance between the fender and the turret.

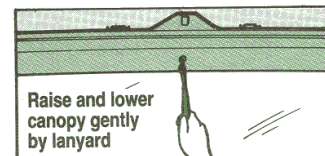


- **Battery box cover.** If it's up, it will be torn off.
- **Ammo box.** If it's not fully seated and locked in place with both pins, it will be knocked off.



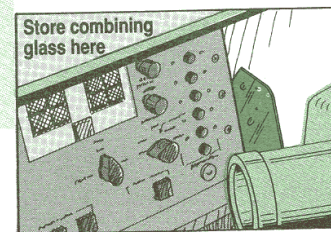
Canopy

The only way to open and close the canopy is with the lanyard — and gently. If you let the canopy spring open or slam shut, the mounting brackets for the canopy struts can be broken. Never use the lanyard as a handhold when you get in or out of the turret. That damages the canopy, too.



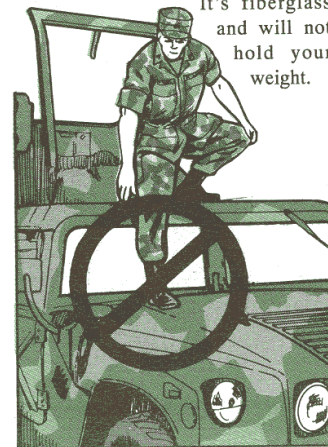
Optical Sight

Store the optical sight's combining glass between the turret wall and gunner's console when you're not on-line. If it's left in the sight, the glass will likely be broken when you're climbing in and out of the turret.



Hood

Stay off the HMMWV's hood. It's fiberglass and will not hold your weight.



Relieving Gas Problems

you can believe it now or you can believe it later when your M60 stops firing: You've got to pay attention to the gas system.

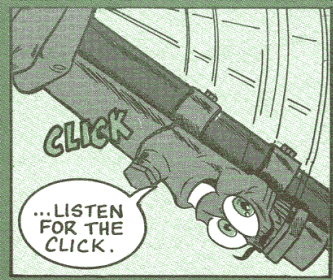
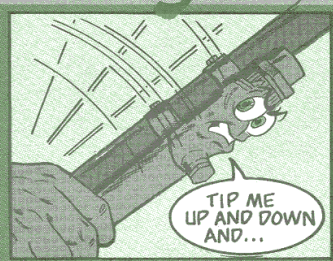
A dirty, plugged-up gas system is hands-down the No. 1 M60 firing problem. If your M60's plugged up, it suffers short recoil, which causes either a run-away gun or a failure to extract, feed, and fire.

How can you tell if your M60 needs gas relief? Simple. Tip the barrel up and down and listen for the click of the piston. The piston should slide like it's on ice.

If it seems slow, try the click test several times. No ice? The gas system needs cleaning even if you eventually hear a click. It will plug up after 100 rounds if it's not cleaned.

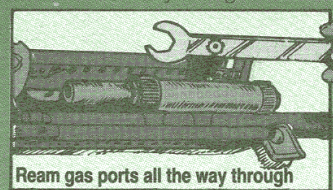
Use CLP to clean carbon off the piston. If you have trouble getting all the carbon off, use RBC. Your armorer should have some.

Never use crocus cloth—or anything rough—on the piston or cylinder. Crocus cloth roughens their surfaces and causes even worse carbon buildup. It also enlarges the cylinder and lets gas escape.

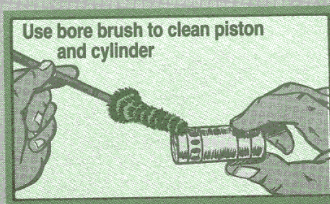


Ream the gas port with your combination tool. Push it in all the way or the cylinder will still be plugged up. Ream all the holes in the piston and cylinder, too.

Run your bore brush through the cylinder and over the cylinder and piston holes to make sure you've gotten all the

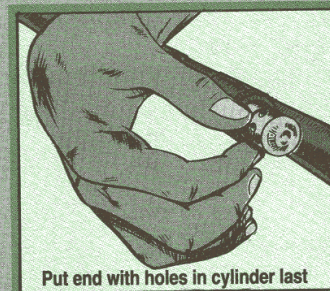


carbon. Even if the piston's clean, it will stick if there's any carbon in the cylinder.



Clean out the extension vent hole with lacing wire.

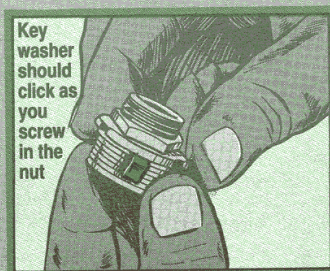
Wipe the piston dry before you put it back in the cylinder. Make very sure the piston holes line up with the cylinder holes—the shiny piston end goes in last. Otherwise, the M60 fires once and quits.



When you put the cylinder back together, make sure the key washer's long prong points toward the opposite end of the cylinder. If the washer's backwards, you'll have a tough time removing the cylinder nut.

When you screw on the cylinder nut,

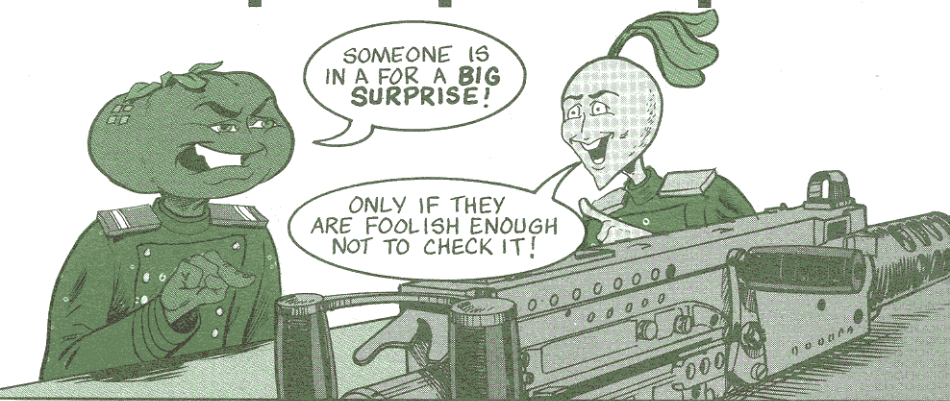
listen for the key washer's clicking. No clicking means the washer's weak and will let the nut back out. Get a new key washer.



Have your armorer safety wire the cylinder plug and key washer to keep the cylinder tight (new plugs don't require safety wiring).



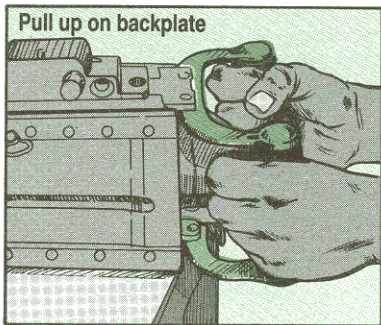
Stop Backplate Surprises



If your M2's backplate flies off during firing, the operating rod flies out at high speed. That's bad news for whoever's firing . . . like you, for instance. The rod could go through you like a knife through butter. Prevent backplate surprises with two checks:

Slide the backplate part-way on the receiver.

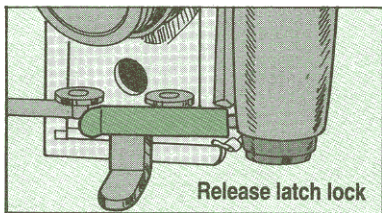
Then, pull out on the latch lock with one hand and up on the bottom latch with the other.



Push the backplate in place and latch the latch lock.

With the latch lock locked, pull up on the backplate. It should hold firm.

Next, release the latch lock and try to pull the backplate up with only the latch in place. It should hold firm.



If the backplate comes up either time, seat and lock the backplate again to be sure the latch lock is locking. If your M2 fails either check again, tell your armorer. He needs to send it to support.

Remember to always seat the backplate before you release the latch and latch lock. That stops backplate damage.

Food for Thought

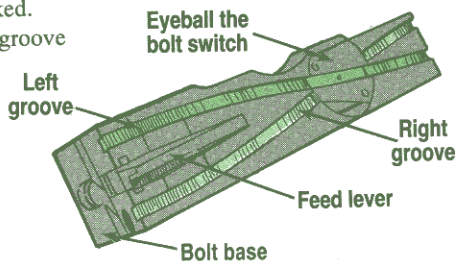


Too many M2 bolts and feed covers are being damaged because soldiers forget to check the feed. But just a glance can tell you if you have the feed right . . . if you know what to look for.

The key is the bolt switch. If you're firing with left-hand feed, the left groove beginning at the bolt's base should run through the bolt switch unblocked.

Right hand feed? The right groove should be unblocked.

Look before you fire. It will keep your M2 feeding happily.



M16A2 Rifle Spring Check

When you're troubleshooting M16A2 rifles for short recoil, forget the check for a weak action spring on Page 2-28 in TM 9-1005-319-23&P. It does not matter what the spring's free length is. What does matter is whether the spring is broken or damaged. Step 1 should read: "Broken or damaged action spring." Make a note until TM changes are made.

ZERO IN ON ZEROING SIGHTS



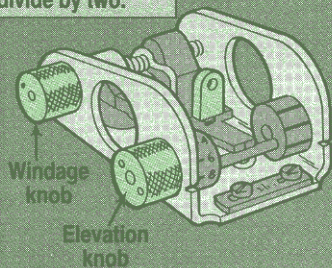
DON'T
FORGET TO
ZERO YOUR
M249 OR
YOU'LL BE
SHOOTING
ZERO.

THANKS,
I'LL DO IT
NOW!

If you can't mechanically zero your SAW, your shooting will be of the can't-hit-the-side-of-the-barn variety. But it's really easy to keep accuracy in sight if you zero like this.

Start with the sight all the way to the left. As you turn the windage knob, count the number of clicks it takes to move the sight all the way to the right. Divide the number by two. (Round up to the next higher number if necessary.)

Count clicks as you
turn the windage knob
and divide by two.



If the answer is 12, for example, move the sight left 12 clicks.

Set the peep sight all the way to the top. Count the clicks as you screw down the sight as far as possible. Divide by two and move the sight up that number of clicks.

Now the sight is mechanically zeroed and you're ready to field zero it.

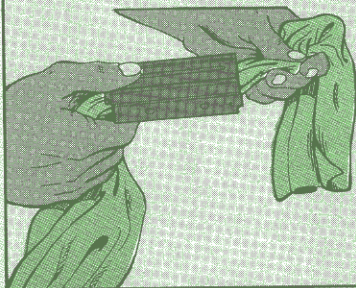
If you can't field zero it for elevation and the peep sight is screwed all the way in or out, tell your armorer. He needs to adjust the front sight post.

Renew Magazine PM

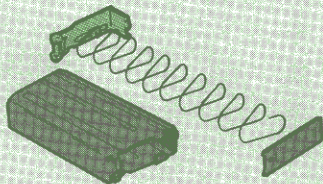
No matter how well you take care of your M16, it won't be much use if you let your subscription to magazine PM expire. If your magazine gets in bad shape, you get double-feeding or no feeding. Do this magazine PM when you do your rifle PM:

Eyeball all seven magazines for deep dents or corrosion that could cause feeding problems. Turn in banged-up or corroded magazines.

Take each magazine apart. Run a clean cloth through each tube until all dirt is gone.



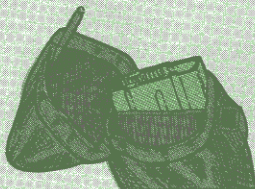
Wipe off dirt from the spring and follower. Lightly lube the spring.



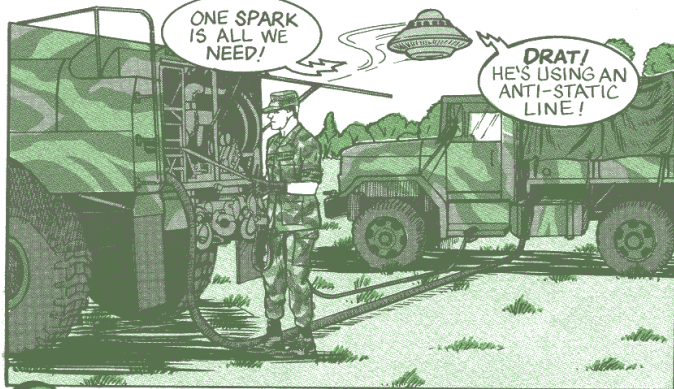
If the spring and follower come apart, do not try to reattach them. You need a new magazine.



Protect magazines by keeping them in their bag, NSN 1005-00-193-8306, when you're not firing.



No Static, Please



One spark is all it takes and your fuel-loading or refueling operation turns into a royal nightmare.

That tiny spark comes from not being able to control static electricity by good grounding or bonding.

This is the same kind of electricity you've felt or seen in the dark when you pulled off your sweater. Or when you walk on a carpet and reach for a metal object—or touch another person. This happens when the air is very dry—like in the desert.

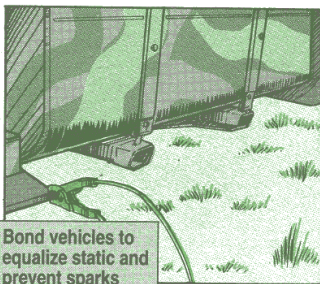
But static electricity can also come from the friction of fuel flowing through a hose or fuel falling through the air. As the static charge builds, it strains harder to jump across any gap separating it from other parts of your system.

If there're fuel vapors in the gap when a spark flashes across—KABAAM—that's all she wrote.

It's Up to You!

You can't prevent static, but you can prevent it from arcing or sparking. You control it with grounding or bonding.

Bonding is connecting a wire from your tanker to the vehicle you're going to refuel. This equalizes any static on the vehicles. Bonding offers a path to equalize static formed during refueling, too.



Grounding is hooking up a vehicle to a ground rod so static will flow into the earth. You drive a rod into the ground or you hook onto a water pipe or other grounded metal.

For more on grounding, see your vehicle operators TM and FM 10-71 with changes 1 and 2.



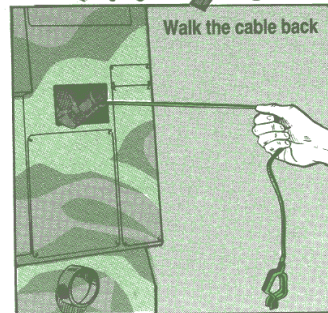
M978 HEMTT Tankers ...

Keep Static Cable Able



Hold it! That static ground cable on your M978 fuel tanker wasn't meant to be yanked about. Tugging back and forth on the cables causes 'em to get bent and kinked out of shape. To make matters worse, static cables get the yo-yo treatment when they're let go and snapped back into the recoil spool. Cables get stretched and broken. Eventually the recoil spring breaks. Then you can't rewind the cable.

So-o-o-o, always walk the static cables back. That way they last longer.



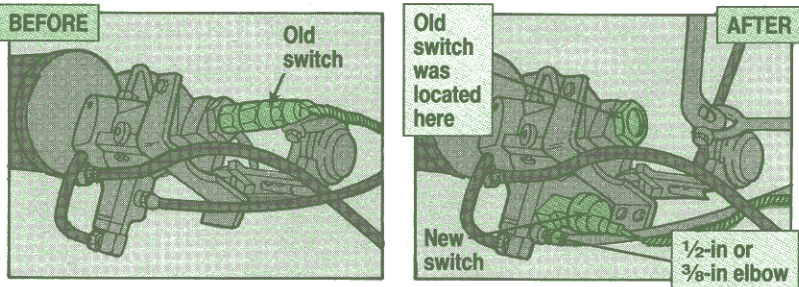
Switch Brake Switch



If your M44-series truck still has the old hydraulic fluid operated brake light switch, you could be headed for trouble.

The old switch, NSN 5930-00-755-0761, can blow an electrical connector pin, dumping all of your hydraulic fluid. Result: No brakes.

Play it safe. Replace hydraulic fluid-operated switches with the air-operated switches, NSN 5930-00-789-6192. Don't let the drawings in TMs 9-2320-209-20P and -20-3-1 throw you. They still show the old switch.

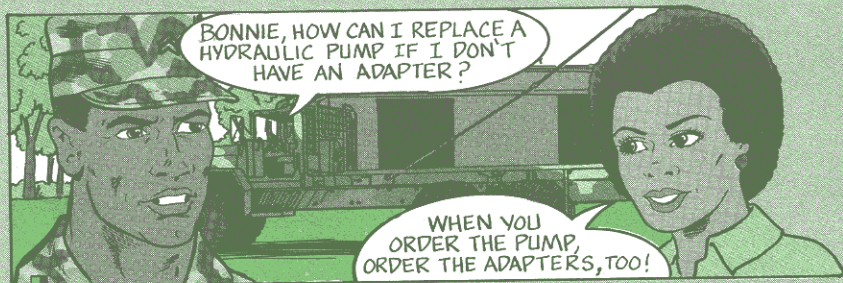


The new switch mounts on the air side. Even if it fails, the brakes won't.

To convert to the new switch, you also need conversion kit, NSN 2530-01-105-5025. It moves the switch to the air side of the brake system. The kit comes with switch, instructions, mounting hardware and a 1/2-in elbow. Some trucks need a 3/8-in elbow, NSN 4730-00-289-0155.

Find out which one you need by measuring the tube shown as Item 12 in Fig 122 of TM 9-2320-209-20P. Tubing is always measured by outside diameter—3/8-in OD means 3/8-in tubing.

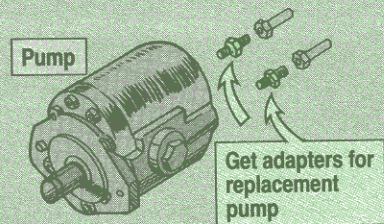
Hydraulic Pump Adapters



If you must replace the hydraulic pump, NSN 4320-01-206-4184, make sure you order the two adapters separately. Replacement pumps don't come with adapters.

Here's what you'll need:

Item	NSN 4730-	Used On
Adapter	00-277-8753	Suction/ inlet port
Adapter	01-011-6190	Discharge/ outlet port



6K Forklift Carb NSN

Get a replacement carburetor for the MHE233 6K forklift with NSN 2910-01-026-3995. TM 10-3930-645-14&P doesn't list the NSN. Incidentally, the part number for the carburetor has changed. It's now R4711AAS, CAGE 29092.

400K Heater Box Spring

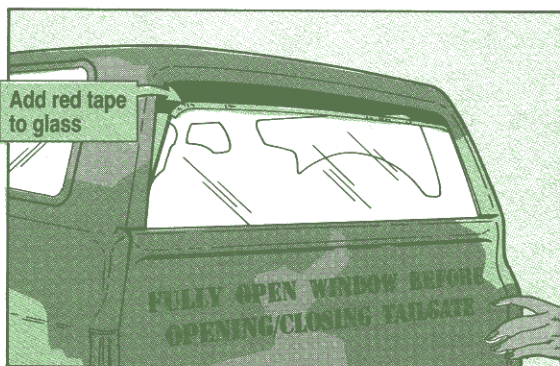
TM 5-4520-251-24P doesn't give the info for ordering a replacement spring for the 400,000 BTU heater's preheater box assembly. Order the spring on a DD Form 1348-6 by using CAGE 92878 and PN 10950769 from RIC S9C.

M1009 CUCVs...

Tailgate Glass Reminder

Unless the rear window on the M1009 is fully open before you open or close the tailgate, the shock of slamming or dropping the tailgate can shatter the glass.

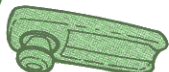
HELP STOP THIS BY
STENCILING A REMINDER ON BOTH
THE INSIDE AND OUTSIDE OF THE
TAILGATE IN 1-IN LETTERS.



Also, since the glass doesn't seat completely in the door, run a strip of 1/2-in wide red tape, NSN 7510-00-550-7126, along the top edge of the window. This will be a reminder not to drop heavy objects on the tailgate glass!

Window Handle NSNs

Here are the parts you need to replace the
tailgate window mechanism on your CUCV:



Crank, P/N 986-1
CAGE 1T973*



Base, NSN 2540-01-218-6833



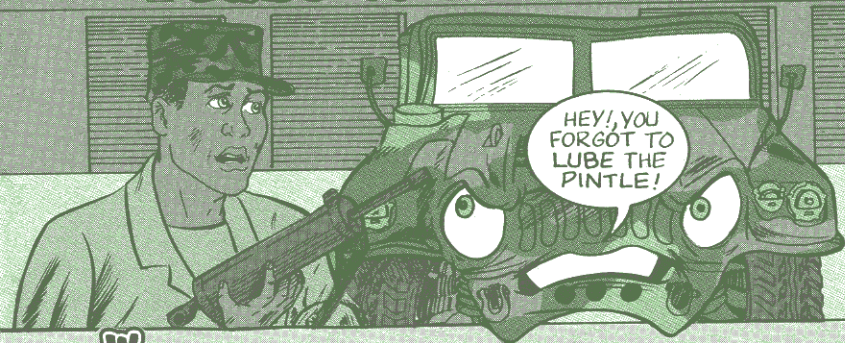
Keyed lock,
NSN 2540-01-211-4621

Handle assembly, NSN 2540-01-158-4602

*Order it on a DD 1348-6
from RIC S9C.

SEP 92

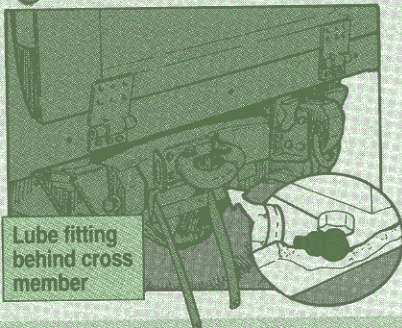
Lube That Pintle



When it's time to grease your Humvee, mechs, remember the pintle. The right amount of GAA there can save big-time damage to your $\frac{3}{4}$ -ton trailer.

If you forget to lube the pintle every 3,000 miles or 6 months like LO 9-2320-280-12 says, rust freezes it into position. It won't turn.

If it can't turn, a twisting or tipping trailer can ruin a lunette quick-like.

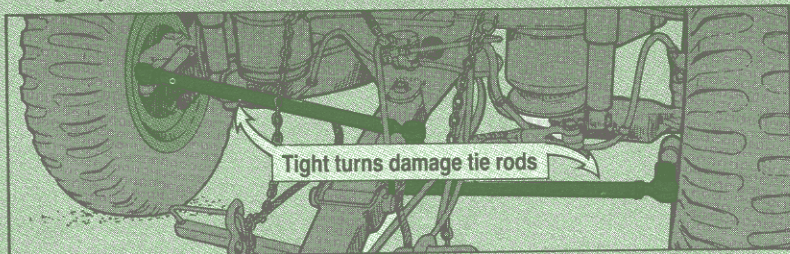


Lube fitting behind cross member

Tight Turns Twist Tie Rods

Ease off on too-tight turns when you're backing a M1022 dolly set with your 5-ton truck. The least you'll get for your trouble is bent tie rods.

The dolly set turns shorter than the truck when being backed. While your truck is still turning, the tie rods on the dolly set are bending or breaking. If your turn is too tight, you could dump whatever the dolly set is carrying.



Tight turns damage tie rods

Order Tire Chains Now!

Don't let the first snowstorm catch you with your guard down or chains "on order". Have them on hand.

Chains are listed in some operator's manuals, but not all. Remember, though, your command decides if you need them.

Here are some common sizes, and the cross chains and swivel hooks you need to repair them.

When dual chains are not listed for your size tires, use singles on the outside tires. Repair parts are the same for same-size single and dual chains.

IF YOU NEED 'EM,
HERE'S HOW
TO GET 'EM.



Tire	Chain Assembly (Pair) NSN 2540-	Cross Chain NSN 2540-	Swivel Hooks NSN 2540-
7.00x16	00-177-7235	00-933-6960	00-937-0405
7.50x16	00-528-7360	00-933-6960	00-937-0405
8.25x20	00-933-9025	00-933-6959	00-937-0404
9.00x16	00-933-9026	00-933-6916	00-937-0404
9.00x20	00-933-9024	00-933-6916	00-937-0404
9.50Rx16.50	00-057-0204	00-933-6916	00-937-0404
10.00x15	01-185-8306	00-933-6916	00-937-0404
10.00x20	00-933-9034	00-933-6916	00-937-0404
10.00x20(dual)	00-933-9020	00-933-6916	00-937-0404
11.00x16	00-933-6933	00-933-6915	00-937-0404
11.00x20	00-933-9022	00-933-6915	00-937-0404
11.00x24	00-933-6935	00-933-6915	00-937-0404
12.00x20	00-933-6922	00-933-6915	00-937-0404
14.00x20	00-933-9033	00-933-6992	00-937-0404
14.00x24	00-933-9023	00-933-6992	00-937-0404
16.00x20	00-933-6937	00-933-6914	N/A
18.00x22.5	01-024-4440	00-933-6913	N/A
18.00x33	01-079-3143	N/A	N/A

The Federal Supply Class 2500 Identification List microfiche has other tire chains. Your authority to order the chains is Appendix A of CTA 50-970.

Apply for Winter Help Now



If you're going to operate in cold weather this winter, make sure you and your vehicles have all the protection you need.

Scope out SB 9-16, Personnel Heater and Winterization Kit Policy for TACOM Equipment. It tells you what's available.

Then, get with your support maintenance. Their parts manuals list the personnel heaters, enclosure kits, starting aids and other special cold-weather help you need to do your job.

* SB 9-16

DEPARTMENT OF THE ARMY SUPPLY BULLETIN

PERSONNEL HEATER AND WINTERIZATION KIT POLICY FOR TANK-AUTOMOTIVE, CONSTRUCTION AND MATERIEL HANDLING EQUIPMENT

TM 9-2320-209-34P		(1) ILLUS.	(2) SMR CODE	(3) NATIONAL STOCK NUMBER	(4) PART NUMBER	(5) FSCM	(6) DESCRIPTION USABLE ON CODE	(7) U/M	(8) QTY INC IN UNIT
(a) FIG NO.	(b) ITEM NO.								
332	1	PFFF		2540-00-301-7267	8710624	19207	GROUP 33 - SPECIAL PURPOSE KITS 3303 - WINTERIZATION KITS REQUISITION AS AUTHORIZED BY SB9-16 ONLY KIT: hot water personnel heater (Use with kit heater support, P/N 10896427) ADAPTER ASSEMBLY	EA	1
		YBO77			7524078	19207		EA	1
								EA	2

Find what you need and get it ordered before it's (brrrr) too late.



This is a selected list of recent pubs of interest to organizational maintenance personnel. This list was made from a computer printout produced by the Adjutant General's Office.

TM 3-6665-331-10 Jun
Chemical agent monitor (CAM)

TM 3-6665-331-23&P Jun
Chemical agent monitor (CAM)

TM 3-6665-332-13&P Jun
Diagnostic test set

TM 5-2420-206-20P Jun
290M Wheeled tractor

TM 5-3805-249-24P May
Caterpillar 120 Road grader

TM 5-3895-283-24P Jun
Bituminous drier-mixer

TM 9-4910-573-14&P Apr
Ground hop support set (GHSS)

TM 10-3930-408-24P May
MHE-180 Warehouse tractor

TM 10-3930-631-24P Mar
Allis-Chalmers ACE40AEE144 and ACE40AEE180 forklift

TM 10-4130-237-14 Jun
Small mobile water chiller LCW 2685 and LCC 2685

TM 10-4610-239-24P May
600-GPH Reverse osmosis water purification units

TM 11-1520-237-23-4 Jul
UH-60A Fault isolation procedures

TM 11-5805-799-12-1 Oct 91
AN/TYC-39(V)6 Central message switching

TM 11-5811-271-13&P May
Update counter assembly

TM 11-5820-1089-12 Mar
AN/TRC-174A Radio repeater set

TM 11-5820-1102-12 May
AN/PRC-132 Radio set

TM 11-5855-299-12&P Mar
TS-4348/UV Electronic test set

TM 11-5865-302-12-2 May
AN/ULQ-19(V)3 Jamming system

TM 11-5895-1279-13 Mar
J-4522/U Interface unit

TM 11-5895-1399-13 Sep
AM/FSC-115 communication system control

TM 11-5895-1464-23P May
AN/TSQ-172(SCCS) Satellite configuration control system

TM 11-5985-389-13 Jan HD-1185/FSC, HD-1185A/FSC and HD-1186/GSC Antenna deicing sets

TM 11-6115-478-23P May
C-67B/G Generator,

TM 11-6625-3150-13 Mar
TS-4221/U Interface unit test set

TM 11-6660-266-13 Mar
AN/TMQ-38 Meteorological measuring set

TB 1-1520-240-20-52 Mar
CH-47D Quick reaction Trimble

TB 1-2840-241-20-10 Apr
T63-A-720 compressor case

TB 9-4120-400-24 Jun
9,000 BTU/HR Air conditioners, F9000H-1SA and F9000H-3SA

Maintenance Advisory and Safety-of-Use Messages

AMCCOM SOU MSG 92-14—Operational, M900 APFSDS-T 105MM cartridge, AMSMC-DSM-MG 011204Z Jun 92.

AMCCOM SOU MSG 92-13—Advisory, M13684MM launcher and cartridge, AMSMC-DSM 021351Z Jun 92.

AMCCOM SOU MSG 92-15—Limited One Time Inspection, Digital electronic control assembly Bradleys, AMSMC-DL 231500Z Jun 92.

AMCCOM SOU MSG—Terminates AMCCOM SOU-MSG 92-12 for M109 self propelled howitzers, AMSMC-MA 251232Z Jun 92.

AMCCOM SOU MSG 92-16—Advisory, Fire control devices, AMSMC-MA 251703Z Jun 92.

AMCCOM Maintenance Advisory MSG 92-21—M1A1 Abrams, AMSMC-MA 121341Z Jun 92.

AMCCOM Maintenance Advisory MSG 92-22—Supersedes

AMCCOM Maintenance Advisory MSG 92-19, Bradley, AMSMC-MA 181928Z Jun 92.

AVSCOM Safety Action MSG—Maintenance. Mandatory, UH-60A and EH-60A aircraft, AMSAV-XSOF 021900Z Jun 92.

TACOM SOU MSG 92-10—Limited One Time Inspection, M998 series HMMWVs, AMSTA-M 081415Z Jun 92.

TACOM SOU MSG 92-11—Advisory, Technical/Maintenance, M915 basic truck tractor, AMSTA-M 191600Z Jun 92.

TACOM SOU MSG 92-12—Limited One Time Inspection, M870A1 and M172 basic semitrailer, AMSTA-M 221500Z Jun 92.

TACOM SOU MSG 92-13—Limited One Time Inspection, M916 truck tractor, M917 dump truck, M918 bituminous distributor, M919 concrete mobile and M920 truck tractor, AMSTA-M 221700Z Jun 92.

TACOM Maintenance MSG—M978 HEMTT fuel tanker, AMSTA-MTC 111000Z Jun 92.

TROSCOM SOU MSG 92-11—Emergency, Type V aerial delivery platform, AMSTR-M 181330Z Jun 92.

TROSCOM SOU MSG 92-12—Limited One Time Inspection, 18,000 BTU/Hr Air conditioner, AMSTR-M 301400Z Jun 92.

TROSCOM SOU MSG 92-13—Emergency, MC-4 personnel parachute system, AMSTR-M 021815Z Jun 92.

TROSCOM Maintenance Advisory MSG 92-14—HCU-36/3 heater, AMSTR-ME 161400Z Jun 92.

TROSCOM Maintenance Advisory MSG 92-16—Collapsible fabric petroleum and water tanks, AMSTR-ME 011700Z Jun 92.

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

Invasion of the PM Snatchers

In a time not too distant from today, the seeds of destruction are being planted.



PODS
AWAY!

HEY, PLANTER,
HOW DID YOU
MANAGE TO GET
A WEEKEND
PASS FROM
SERGEANT
SEVIN?

FORT
FLORA

WELL,
SOMETIME I'LL
TELL YOU ALL ABOUT IT.

SOME GUYS HAVE
ALL THE LUCK.

I-AM-NOW-
PLANTER!

HEY, PLANTER! WHAT ARE YOU DOING BACK HERE?
HAVEN'T YOU STARTED THAT WEEKEND PASS
YOU GOT FROM SERGEANT SEVIN YET?



THE
NEXT
MORNING...

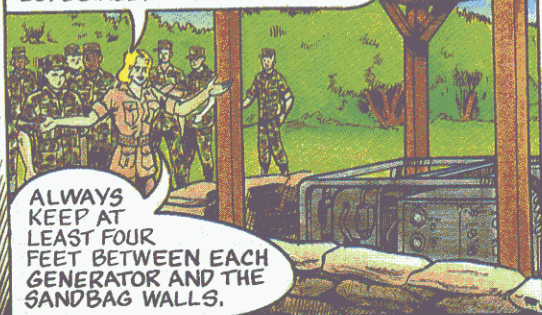
TROOPS, WE HAVE A SPECIAL GUEST VISITOR THIS MORNING. CONNIE IS HERE TO HELP US WITH OUR GENERATOR PM!



JUST LIKE THE LARGEST ARMY EQUIPMENT, GENERATORS NEED GOOD PM TO ENSURE THEY DO THEIR JOB!

HERE ARE SOME OF THE MOST COMMON PROBLEMS YOUR GENERATOR ENCOUNTERS.

GENERATORS NEED SHELTER, BUT ABOVE ALL THEY NEED PLENTY OF BREATHING ROOM, ESPECIALLY IN HOT CLIMATES.



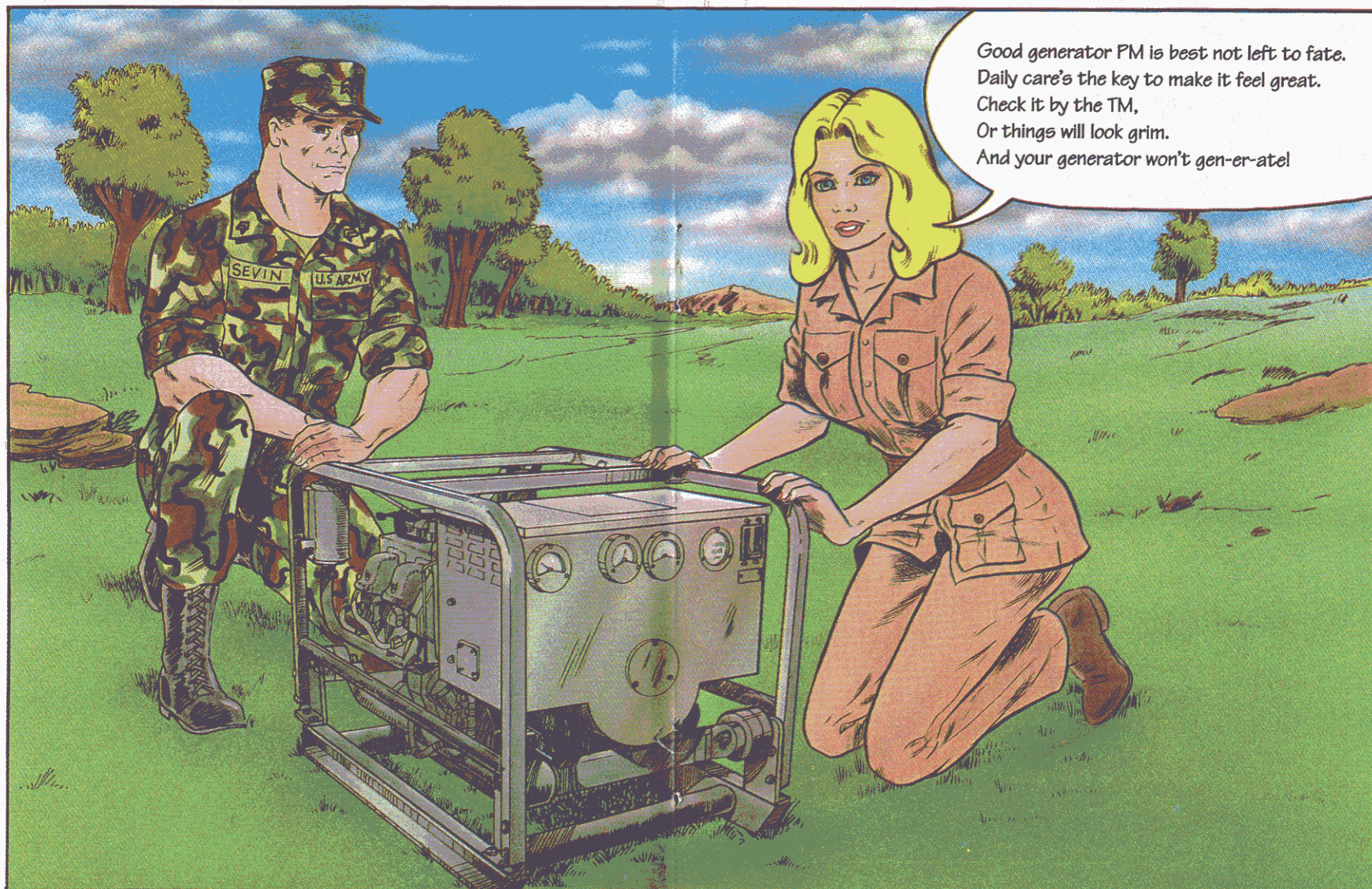
ALWAYS KEEP AT LEAST FOUR FEET BETWEEN EACH GENERATOR AND THE SANDBAG WALLS.

CLOSE SHROUDS AND DOORS TO KEEP COOL AIR CIRCULATING AROUND THE GENERATOR'S ENGINE.

THIS ALSO KEEPS DIRT AND DUST OUT OF YOUR GENERATORS.

IMPERIOR, GOLDEN-HAIRED EARTHLING SPEAKS WISE WORDS OF PM!

WE MUST CONTINUE MONITORING CAREFULLY.



Good generator PM is best not left to fate.
Daily care's the key to make it feel great.
Check it by the TM,
Or things will look grim.
And your generator won't gen-er-ate!

WE HAVE THE WORLD'S BEST EQUIPMENT ...*Take care of it*

IF YOU WANT TO DISPLAY THIS CENTERPIECE ON YOUR BULLETIN BOARD, OPEN STAPLES, LIFT IT OUT AND PIN IT UP.

CHECK THE SHUTTER
OFTEN...

IF THE LINKAGES ARE DIRTY,
THE SHUTTER ASSEMBLY WILL EITHER
JAM OPEN OR CLOSED. THAT CAUSES THE
ENGINE TO OVERHEAT OR STAY TOO COLD,
DEPENDING ON WEATHER CONDITIONS.

-MISSION-
-IN-PERIL!

ALWAYS VENTILATE THE
EXHAUST OUTSIDE THE SHELTER
AREA WITH FLEXIBLE HOISING. THE
EXHAUST FUMES ARE DEADLY TO
YOU AND THE HEAT WILL KILL
YOUR GENERATOR'S ENGINE.

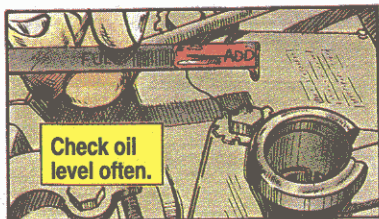
PROPER LUBRICATION KEEPS YOUR GENERATOR'S
MOVING PARTS MOVING. IF THERE'S NOT ENOUGH
OIL, THE ENGINE WILL SEIZE.

THAT
EARTH WOMAN
IS A THREAT TO
OUR MISSION,
IMPERIOR!

I AM
CONFIDENT
PLANTER WILL
BE SUCCESSFUL!

"Too much oil can cause internal pressure and blow gaskets and seals. Check the oil level every few hours. The PMCS in your TM gives you the scoop on how often.

If the oil level's low, add a little at a time until it's between the ADD and FULL marks on the dipstick. Always use the grade of oil recommended for your climate by the LO."

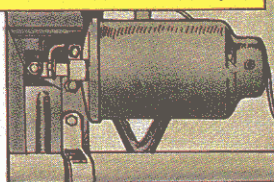


IMPERIOR,
WE MAY HAVE
TO ABORT.

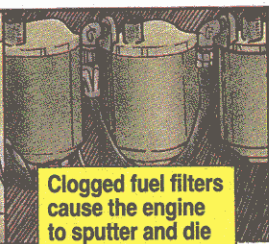
NEGATIVE,
WE MUST PROCEED
AS PLANNED!

"These filters are your generator's last line of defense against dirt, so check 'em often and change them according to the TM's directions."

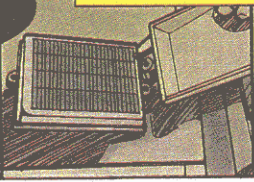
A clogged oil filter restricts the flow of oil. The engine will overheat or seize up



Clogged fuel filters cause the engine to sputter and die



A clogged air filter makes the engine overheat



"Water shorts out the generator's electrical system and contaminates fuel and oil. A covered shelter is great, but a tarp cover or covered trailer will also serve as good protection. Never, ever, use a steam cleaner or high pressure water hose on your generator. Instead, let mud dry, then brush it off. Use a damp cloth to wipe the generator clean."

THANKS FOR THOSE GREAT PM TIPS, CONNIE. WE'LL PUT 'EM TO GOOD USE RIGHT NOW, UHH... EXCUSE ME.



-MUST-COMPLETE-MISSION!



THE NEXT DAY...



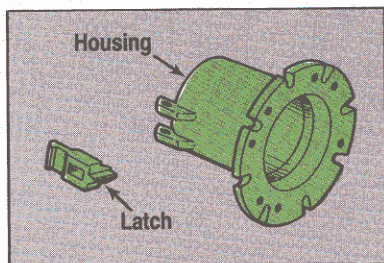
Repair Refueling Port

Some aircraft refueling ports are damaged during closed circuit refueling operations because of damaged or worn seals on the CCR nozzle, which makes it hard to separate the nozzle from the port after refueling.

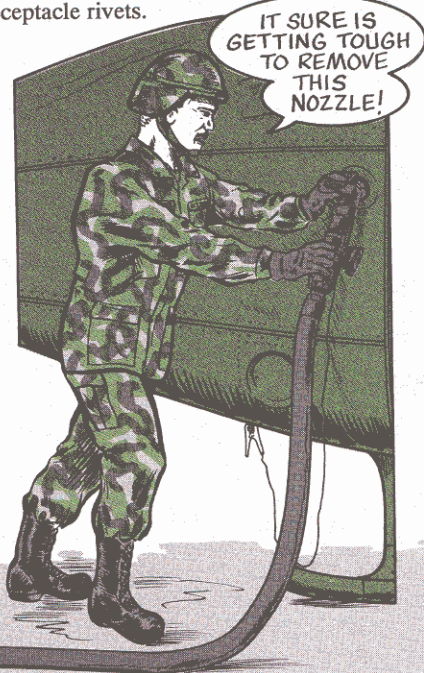
Refueling operators wiggle or pry the nozzle away from the receptacle, scratching and denting the bird's skin or popping receptacle rivets.

If the fueling port is damaged, you can repair a broken receiver latch or housing.

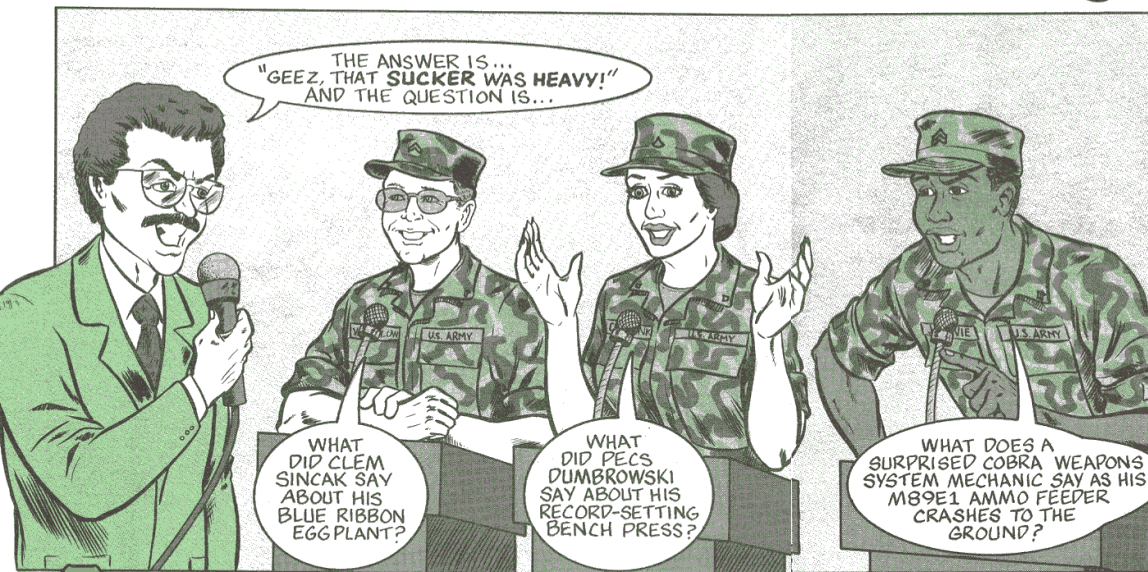
You can get the latch for the Huey and Cobra with NSN 1560-01-070-5669.



But the housings are different. Get the Cobra's housing with NSN 1680-01-242-7267 and the Huey's with NSN 1680-01-222-8827.



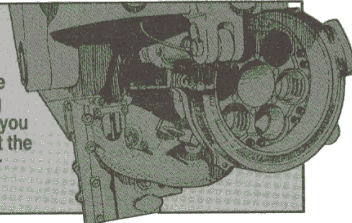
The Feeder's in Jeopardy



So grab someone to be the lift-and-hold person. Four hands for this job are much better than two.

Second, when you reinstall a feeder, you must set the timing. When the timing is not set, sprockets are bent, cracked and broken.

Make sure you set the timing when you mount the feeder



Some of the timing problems will end when you make this a two-man job. It's just too tough for one man to hold the feeder timing pin in and mount the feeder at the same time.

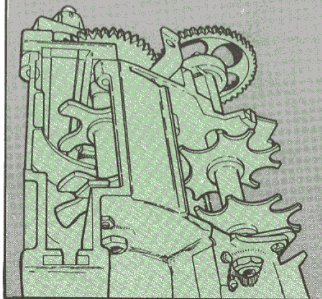
Make removing and installing your M89E1 feeder an easy job. Use two people and set the timing right.

The show Jeopardy is fun to play at home as a game, but it's no fun to put your 20-MM gun's feeder in jeopardy. Many of you are doing just that.

First, removal and installation of the feeder is a two-man job. It's just too heavy and unwieldy for one man to remove or insert the mounting pins and hold the feeder.

Some mechanics have made it a one-man job by doing a balancing act with their knee, but that act's heading for a fall ... a fall that will damage one or more of the 20 parts that make up the feeder.

Always use 2 people to handle the feeder



Aviation Messages

If your unit has not received a message you have an interest in, check with your next higher headquarters.

OH-58-92-ASAM-14, Maint Mand, all OH-58D Aircraft, Revised engine oil servicing procedure, 011600Z Jun 92.

UH-60-92-ASAM-03, Maint Mand, UH-60A and EH-60 Aircraft, T700-GE-700 gas generator rotor turbine blade failures/engine cleaning, engine life limited components tracking, and single engine flight planning procedures, 021900Z Jun 92.

UH-1-92-ASAM-09, All UH-1 series aircraft, corrosion repair of 90 degree gearbox support fittings, 102200Z Jun 92.

OH-58-92-ASAM-15, Maint Mand,

all OH-58A/C helicopter, inspection for location and removal of OH-58A/C tail rotor blade assembly, (TB 1-1520-228-20-66), 111930Z Jun 92.

OH-6-92-ASAM-05, Maint Mand, H-6 Series aircraft with T-63-A-700/720 engines for inspection of fuel systems (TB 1-2840-241-20-12), 121830Z Jun 92.

OH-60-92-ASAM-04, Information, all EH-60 aircraft, use of recovery/recycle equipment on all air-conditioning or refrigerant systems that use chlorofluorocarbons (CFC)/Freon, 161330Z Jun 92.

CH-47-92-ASAM-05, Maint Mand, all CH-47D, MH-47D and MH-47E

aircraft, replacement of Hi-Lock fasteners in L/H and R/H butt line 18 beams at fuselage station 83 to 120, (TB 1-1520-240-50-02), 162030Z Jun 92.

AH-64-92-ASAM-05, Maint Mand, all AH-64A aircraft, main rotor stretched strap assembly removal, (TB 1-1520-238-20-37), 291800Z Jun 92.

OV-1-92-ASAM-02, Maint Mand, all OV-1D/RV-1D aircraft, one-time and recurring inspection of nose landing gear outer cylinder drag brace attachment lugs P/N 2578210 for cracking, (TB 1-1510-213-30-08), 292000Z Jun 92.

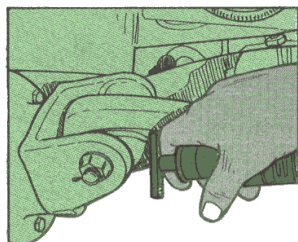
CAT 1 EIR Phone:
DSN 693-2066
(24 HOURS)

Damper Indicator



Dear Windy,

To service the Black Hawk's main rotor head damper, a hydraulic fluid dispenser is connected to the outer bleed port. After the service and while disconnecting the dispenser, the damper indicator handle must be held in its extended position.

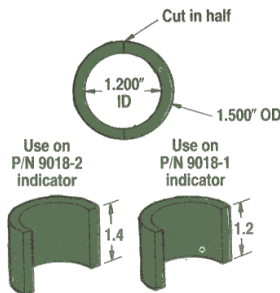


This is tough to do. The indicator handle has a strong spring tension. A lot of mechanics have solved the prob-

lem by wedging things like sockets between the indicator body and the handle, but unless the wedge is just right it can slip and fly off going anywhere . . . in your face or in the aircraft.

To solve these problems we made a couple of simple wedges.

Just cut some bench stock tubing to these dimensions:

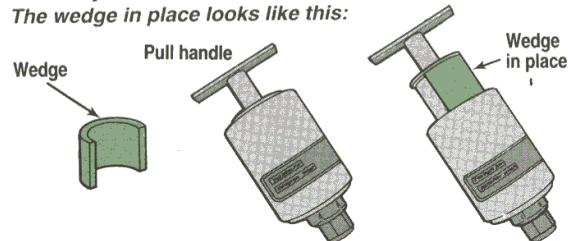


Holding Tool

The important dimension is the internal diameter of 1 1/5 inch. That will snug your tool up to the indicator cylinder. The outside diameter is more flexible.

If you have indicator, PN 9018-1, the fully extended gap between the handle and the body of the indicator is about a fifth of an inch more than on indicator, PN 9018-2. So make your wedge a little longer. Then, attach a red streamer to the wedge to remind you to remove it before flight.

The wedge in place looks like this:



This wedge will save time and effort and is much safer than just jamming anything available in the gap.

John Beckman
Ft Hood, TX

THANKS, MR. BECKMAN, FOR A SIMPLE BUT EFFECTIVE SOLUTION! REMEMBER TO REMOVE THE TOOL IMMEDIATELY AFTER YOU INSTALL THE BLEED PLUG AND PACKING.



Facsimile PM Facts



It's a well-known fact that the AN/UXC-7 facsimile used with the Mobile Subscriber Equipment (MSE) needs to have a clean scan-optic lens to send clear copies.

The operator's PMCS in Table 3-2 of TM 11-5815-615-10 tells you, the operator, to brush dust from this lens daily.

But to keep your fax sending clear-cut copies, run the self test weekly. If the copy is unclear, clean the scan-optic lens with a swab dipped in denatured alcohol, NSN 6810-00-753-4993. The alcohol removes any dirt, oil, grease or fingerprints on the lens.

You also need to brush dirt and dust daily from the stylus area with a small bristle brush, NSN 7510-00-550-8446.

Use these tips along with your daily PMCS and the folks that receive your facsimiles will get just the fax and nothing but the fax!

Substitute Antenna Element

You can use the AS-1729 antenna's top element AT-1095/VRC instead of the AS-3885 top element on your Mobile Subscriber Equipment AN/VRC-97 radio set. That'll save about \$70 a pop.

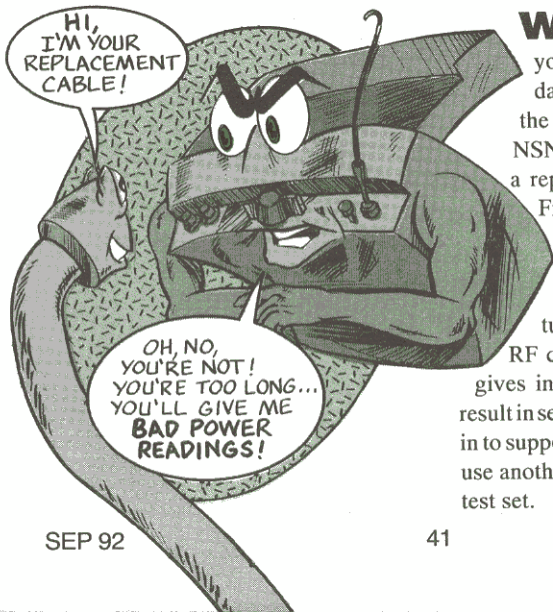
Tests show there's no range loss when you use the AS-1729 antenna element instead of the AS-3885.

So order AT-1095/VRC element, NSN 5820-00-856-2728 instead of AS-3885 element, NSN 5985-01-259-9439, to save bucks.



AN/PRM-34 Test Set . . .

Get Right Cable



When the coaxial cable for your AN/PRM-34 test set is damaged, make sure you get the right replacement cable.

NSN 5995-00-405-9097 gets you a replacement cable for Item 4, Fig 1 of TM 11-6625-3015-24P. Make a note until the TM is updated.

Many folks are substituting longer cables for this RF cable. But a substitute cable gives incorrect power readings that result in serviceable radios being turned in to support for repair. So-o-o-o, never use another cable to test radios on this test set.

PM Arrests Moisture

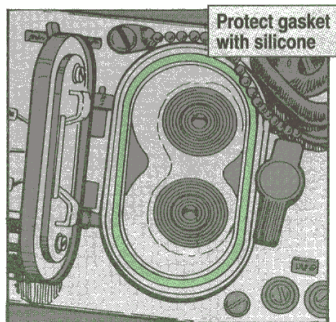
Moisture tops the most wanted list for killers of the TA-312 telephone set. Moisture creeps inside your set, corroding batteries and shorting out electrical components. Before you know it, you've got a dead telephone.



Use these PM tips to arrest those soggy problems:

- ◆ Cover the TA-312 with a poncho or other protection during rain. Keep the set off the ground, especially where puddles form.
- ◆ Keep the battery compartment dry. Wet batteries corrode quickly, so wipe wet compartments dry with a clean cloth. Then clean the battery box with cleaning compound, NSN 6850-00-597-9765.
- ◆ Seal the battery compartment tight by dabbing a thin coat of silicone, NSN 6850-00-880-7616, on the gasket. If the gasket is cracked or torn, get it replaced.

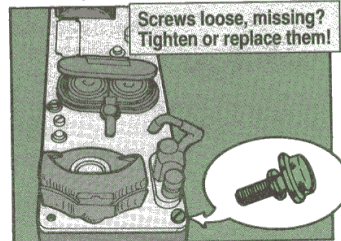
42



- ◆ Look over the telephone's coverscrews. Tighten those that are loose and replace

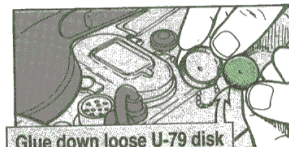
SEP 92

missing ones with NSN 5305-00-054-6670. You'll also need packing, NSN 5330-00-448-1018, to keep the screws waterproof. Just slip it over the threads before tightening down the screw.



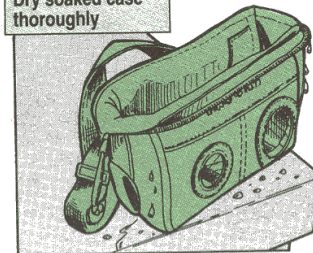
SEP 92

- ◆ Take a close look at the U-79 cap. If the disk inside is loose, moisture gets in. Keep the disk in place with adhesive, NSN 8040-00-270-8150.



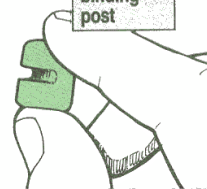
- ◆ Put the telephone set inside its CY-1277B/PT canvas case for protection from water. If the case gets soaked, take it off and let it dry completely before putting the phone back inside.

Dry soaked case thoroughly



- ◆ Make a drip loop in the WD-1 field wire when attaching it to the telephone's binding posts. That keeps water from dribbling onto the posts.
- ◆ Protect the posts with rubber boots, NSN 5999-00-869-6263.

Use rubber boots on binding post



43

PULL Those Punches!



A soft touch on the keypad of your Mobile Subscriber Equipment's TA-1035/U telephone set prevents big dollar damage.

A thin, metallic paint under the rubber keypad completes the circuit when you punch in a phone number. But the paint will break up or wear away if you jab the keypad too hard or use a sharp object—such as a pen or pencil.

The result is simple: When the paint's gone, so is your phone's usefulness.

You can't get a new keypad assembly. That means you have to order the entire base unit—at a cost of nearly \$3,000.

M22 Warranty

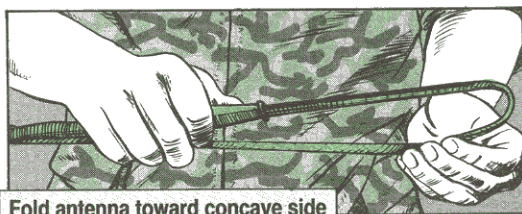
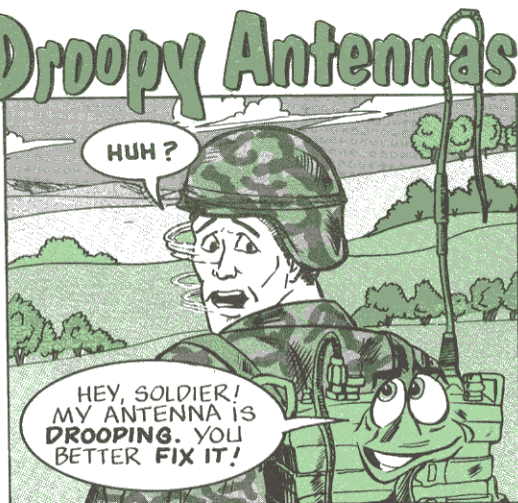
Your M22 binocular has a 5-year warranty starting from the date in block 23 of the DA Form 2408-9. Report defects on an SF 368, Quality Deficiency Report (QDR).

Send the form to:
USA Armament, Munitions and
Chemical Command
ATTN: AMSMC-QAD
Rock Island, IL 61299-6000

Stop Droopy Antennas

The AT-892 blade antenna on your AN/PRC-77 and the AS-3575 on your AN/PRC-126 radio sets need to stand straight to do their jobs. A droopy antenna decreases the range of your radio sets.

For your antenna to stand straight, you need to do your part when you store it. Always fold the blade section loosely toward the concave (curved inward) side. If you force the antenna to fold the other way, you'll snap it off or put a permanent crimp in it, causing it to droop.

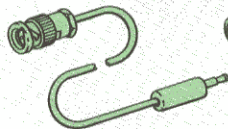


Fold antenna toward concave side

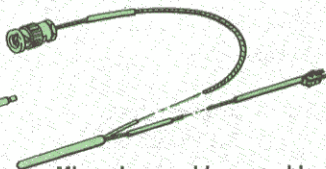
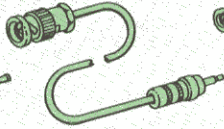
AN/PRC-127 Cable Assembly NSNs

TM 11-5820-1048-24&P leaves you hanging for the special test cable NSNs used with the AN/PRC-127 radio. Get the cables with these NSNs:

Speaker cable assembly,
NSN 5995-01-323-5381



RF cable assembly,
NSN 5995-01-323-4722



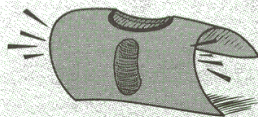
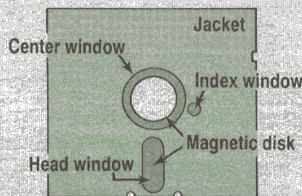
Microphone cable assembly,
NSN 5995-01-323-5380

FIGHT FLOPPY FOUL-UPS

Computers, like most machines, are prone to breakdowns. So your info's not safe until the floppy disk is securely in hand.

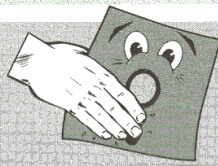
Even then there's no guarantee your info will still be there when you need it unless you take good care of the floppy's five main components: the jacket, center window, head window, magnetic disk and index window.

Narrow the chances of disk failure with these PM tips:



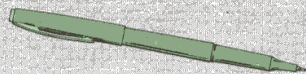
Never fold or bend the floppy. Even using the disk like a fan can cause it to stick in its jacket. That causes errors to pop up when your computer tries to read the disk.

Keep alcohol and fingers away from the floppy's magnetic disk. Oils from your skin and cleaners such as alcohol or paint thinner will damage the disk surface and reduce reading accuracy.

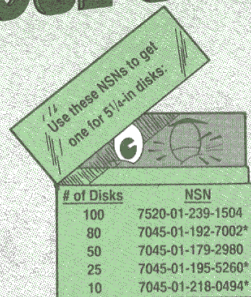


Protect your disks by filing them away when not in use. The disk surface can be ruined when a floppy just happens to be under a piece of paper you're writing on.

Always—every time—use a felt-tip pen to fill out the label. A ballpoint pen or pencil will mark the disk—and ruin it.



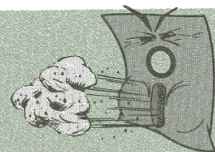
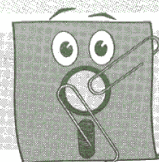
Watch where you affix labels. The floppy will not work if the label covers the index, center or head windows. And never overlap the labels since an overly thick jacket causes problems, too.



Invest in a plastic disk case. If you use 3 1/2-in disks, use NSN 7045- 01-233-0052* to get a case that holds 80 or more disks. Or go to your local computer store and buy a case to hold five or 10 disks for less than five bucks.

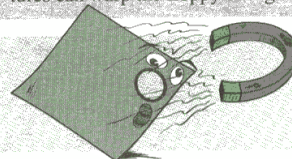
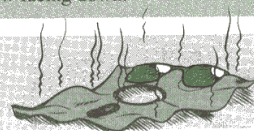
**Order on DD Form 1348-6 and put "NSN not on AMDF" in the Remarks block.*

Keep paper clips away from floppy disks. Clips will bend and scratch the disk. Then your computer's disk drive can't read or write to the disk. Your info's gone.



Keep your disk clean. Dust and floppies are a bad combination, so keep the places where you use and store the disks as clean as possible. Keep the disks in their protective envelopes with the head window facing down.

Protect disks from excessive heat. Long exposure to direct sunlight or high temperatures can warp the floppy's magnetic disk.

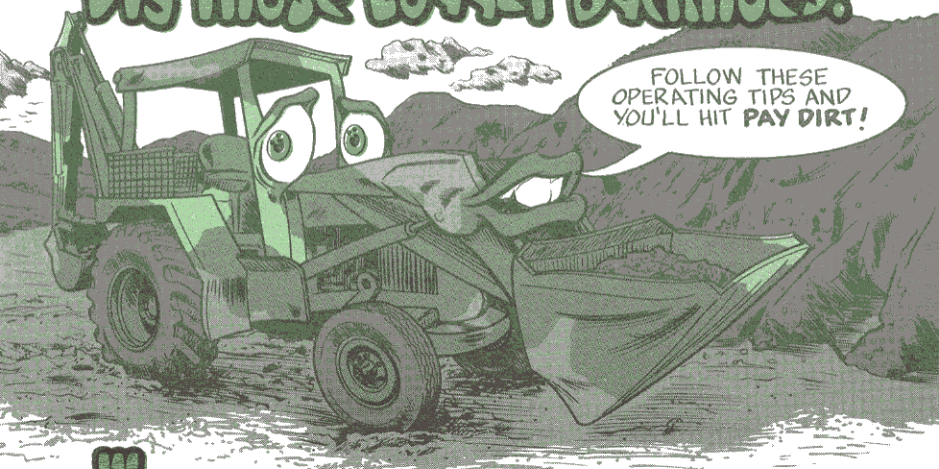


Never place your disk near a magnetic object. The magnetic field generated can easily wipe out stored information.

Insert the floppy into the disk drive slowly to avoid bending it. Then close the disk drive door gently to prevent damage to the jacket or disk.



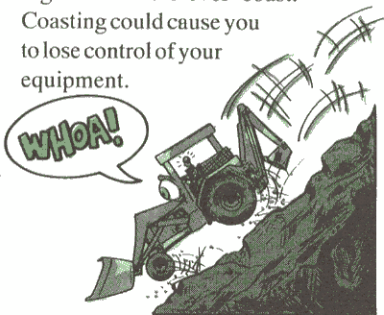
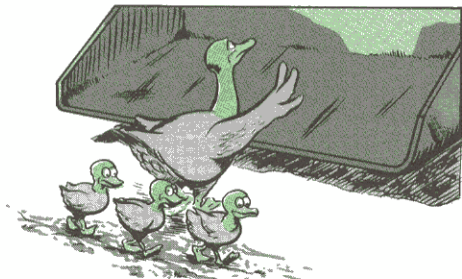
Dig Those Loader Backhoes!



When you move your JD410, keep both buckets — loading and digging end — close to the ground. When you drive cross-country, carry about a 1/2 bucketful in the loader and the backhoe buckets. That reduces the chance of tipping over. Drive slow, especially over rough or slippery ground and on hillsides.

Loader

- Keep the loader **LOW** so you can see what's ahead of you as you travel or work.
- Always stay in gear when traveling downhill. Never coast. Coasting could cause you to lose control of your equipment.



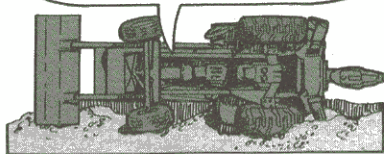
- Always use service brakes and parking brakes carefully. Eyeball your -10 TM for info on brake use.
- When operating the loader keep the backhoe in a locked position to keep it from moving.

- Always keep a sharp eye out for low branches and dead trees.



- Stay away from steep slopes or slippery surfaces. If you must drive on a slope, keep the load low and proceed with extreme caution. **NEVER** drive **ACROSS** a steep slope! Your equipment might tip over. Drive straight up and down the slope. If the bucket's loaded, the bucket and load should be pointed uphill. If it's empty, the bucket should be pointed downhill.

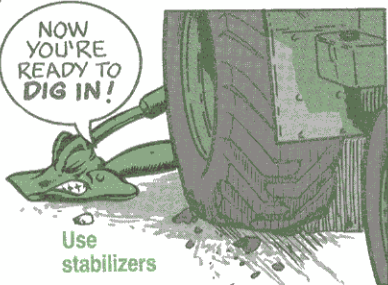
WHOOOPS! I THOUGHT I WAS GETTING A LITTLE TIPSY.



- Don't turn on an incline. If you have to make a turn, use extreme caution. Go slow . . . with the bucket low . . . and make the turn wide.
- Be sure to keep the work area as flat and level as you can. And never spin the machine's wheels. That causes dangerous ruts. Backdrag with the loader bucket every once in a while to keep the surface smooth.

Backhoe

- Always support your machine with the stabilizers before you begin to dig.



- Never dig under the machine or the stabilizers. That could cause a cave-in and your equipment might fall into the excavation.
- If you're operating the backhoe on a slope, swing to the uphill side to load. If you must dump downhill, swing only as far as necessary to dump the bucket.
- Keep an eye peeled for overhead lines or limbs that might get in your way during operation. Get a ground guide to direct you around them.
- Always know where gas lines, water pipes and cables are before you dig.



SEE.

Find Missing COEI Here

YOU WON'T FIND THE COMPONENTS OF END ITEM(COEI) LIST FOR THE SMALL EQUIPMENT EXCAVATOR IN TM 5-2420-244-10...

...SO USE THIS LIST UNTIL THE TM IS UPDATED.

Item	NSN
Backhoe	2590-01-270-7565
Rock drill	5130-01-178-6338
Carbide bit, 3/4 in x 18 in	3820-01-232-8047
Carbide bit, 1 in x 24 in	5130-00-061-4115
Carbide bit, 2 in x 24 in	3820-01-232-8048
Pavement breaker	3820-01-242-1440
Clay spade, 5 1/2 in	3820-01-242-1210
Moil point bit, 14 inches	3820-01-160-2901
Chisel bit, 3-in point, 14 in long	3820-01-161-4753
Chainsaw	3695-01-243-2325

PM TIDBITS



To keep your Kawasaki motorcycle on the trail, scout out these tips:

REAR AXLE PIN: Brush and snags pull out the hairpin clip in the retaining pin. Then the retaining pin pops out. To keep the pin in place, replace the hairpin clip with a cotter pin.

CONTROL LEVERS: When a biker dumps his cycle in rough terrain, usually a clutch or front brake control handle bites the dust too. The NSN for the clutch handle is 3040-01-344-1853.*

Order the brake handle on a DD Form 1348-6 from S9C using CAGE 17654 and PN 46092-1114. Use JZO in the advice code column.

COOLANT: When adding coolant to the cooling system, use a 50/50 or 60/40 mixture of antifreeze and water. The system holds about one-half gallon, so mix up a couple of gallons to keep on hand for when you need it.

**NSN is not on AMDF. Order on a DD Form 1348-6 from S9C.*

Track Pads Needed? Maybe Not



The latest word from the ACE top shop is that track pads are needed only when the ACE is driven on improved roads. They say the vehicle gets better traction during operation without track pads. If you can get from where your ACE is parked to the job site without cutting up a hardtop road, save your pad money. Spend it for other maintenance items.

Need it in writing? Get ahold of the M9 ACE News 'n' Views. See your local Logistics Assistance Representative, or write to Half-Mast.

Missing pads?
That's OK... maybe



Watch Your Step!



I DRIVIN' ALONG, ♪ ♪
SINGIN' MY SONG... HEY! ♪
WHAT GIVES ?!!! WHERE'S ALL
THAT **SMOKE** COMING FROM?

Mechanics, stay off the exhaust hose inside the ACE's engine compartment. The hose looks like a convenient footrest while you're working on the engine, but your weight breaks the exhaust clamps.



A busted clamp means the exhaust gas can vent directly onto the batteries — not good. Engine exhaust can seep into the operator's compartment — definitely not good.

Eyeball the exhaust clamps. See a loose clamp? Snug up the hose and tighten the clamp. Replace a broken clamp with NSN 5340-01-183-6863.

Listen Up!



Aircraft:

CAUTION

HEARING PROTECTION
REQUIRED

NSN 7510-00-629-

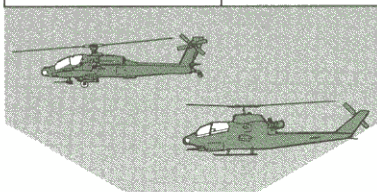
Width

6637

2 inches

6638

2 1/2 inches



M1 tank:

CAUTION

HEARING PROTECTION
(HELMET) REQUIRED

NSN 9905-01-079-2903



M977-series HEMTT.

HIGH INTENSITY NOISE
HEARING PROTECTION
REQUIRED

NSN 7690-01-196-0122

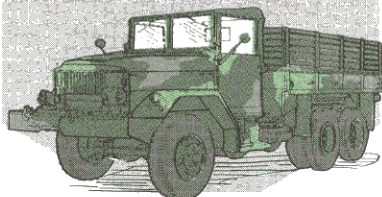


Gama Goats, all 2 1/2-ton trucks,
GOERS, HET M746 & M911 &
M123 10-ton trucks:

CAUTION

HEARING PROTECTION
IS REQUIRED FOR
DRIVER AND CO-DRIVER
(REF. MIL-STD-1474)

NSN 7690-00-510-0365



M88 recovery vehicle, M60 tank,
M728 combat engineer vehicle,
M109 SP Howitzer, M992 ammo
carrier, construction items,
stationary large rigs, tanks and
some artillery:

CAUTION

HIGH INTENSITY NOISE
HEARING PROTECTION
REQUIRED

NSN 9905-00-198-2728



M113-series personnel carriers:

CAUTION

HEARING PROTECTION
REQUIRED

SEE TB MED 251

NSN 7690-01-022-9297



M2/M3 FVS:

WARNING



Noise from vehicle or weapons
can damage hearing.

Wear earplugs and either
CVC helmet or headset when
operating vehicle or weapons

NSN 7690-01-264-0194



MLRS carrier:



CAUTION

HEARING
PROTECTION
REQUIRED

See TB MED 251 and
operator's manual

NSN 7690-01-134-3813



Thread Repair Made Easy



It's those little things in life that can really get under your skin—like trying to thread a nut on a bolt with bad threads.

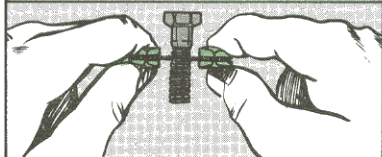
Now there are thread repair sets available to fix damaged threads. Get the standard sets with NSN 5136-01-321-6790 and NSN 5136-01-355-3036, the combination set with NSN 5136-00-321-6789 and the metric sets with NSN 5136-01-355-3034 and NSN 5136-01-355-3035.

Here's how to use the thread repair set:

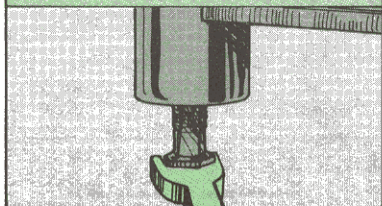
- Pull the die apart and slip it over a damaged stud or bolt. Do not stretch the spring too far.



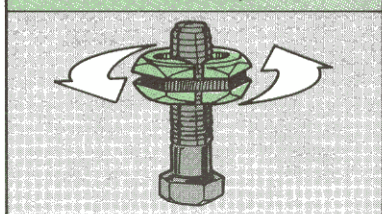
- Be sure the die is placed behind the damaged threads, then release the spring tension. Twist the die around the bolt by hand a few times to ensure both halves are aligned on the same threads.



- Slip a standard socket wrench over the die to hold the halves together.



- Turn the die counterclockwise until the threads are repaired







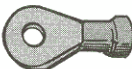

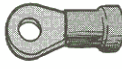



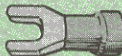









Terminal Kit Components

Wiring on vehicles uses a variety of electrical terminals.

You get 500 terminals (20 different types and sizes), a crimping tool and a storage box when you order electrical terminal kit NSN 5940-00-525-0907.

Use these NSNs to order replacement components:

ORDER REPLACEMENT
COMPONENTS USING FSC 5940
WITH THESE NIINs...

RING TERMINAL 18 AWG  00-204-8966	RING TERMINAL 18 AWG  00-143-4771	RING TERMINAL 14 AWG  00-113-8179	RING TERMINAL 14 AWG  00-143-4780
RING TERMINAL 14 AWG  00-230-0515	RING TERMINAL 10 AWG  00-143-4794	RING TERMINAL 10 AWG  00-143-4777	RING TERMINAL 10 AWG  00-113-9826
SPADE TERMINAL 18 AWG  00-833-1705	SPADE TERMINAL 14 AWG  00-539-2193	SPADE TERMINAL 14 AWG  00-552-2019	SPADE TERMINAL 10 AWG  00-727-5351
SPADE TERMINAL 18 AWG  00-938-5515	BUTT CONNECTOR 16 AWG  00-143-5147	BUTT CONNECTOR 14 AWG  00-140-9596	BUTT CONNECTOR 12-10 AWG  01-079-1936
DISCONNECT TAB 14 AWG  00-378-7225	QUICK DISCONNECT RECEPTACLE 14 AWG  00-929-0085	QUICK DISCONNECT TAB 18 AWG  00-867-9573	QUICK DISCONNECT RECEPTACLE 18 AWG  00-436-1632

WHEN IT COMES TO
PACKAGING AND SHIPPING
REPAIRABLES...

... WE GOT
THE RIGHT STUFF,
BA-BEH!

UH-HUH!

For years, the cry has been raised from depot docks that units were careless in packaging returned repairable stocks. Sloppy packaging meant the shipped item was further damaged and repair costs were multiplied.

But for many units, that cry was a distant one. Now, under the SFDLR program, repairables damaged further in shipping will cost you. That cry you hear will be yours when you see your pool of supply money become a puddle.

Turn that cry into a smile by becoming a perfect packer. Start by writing for the book, "Packaging—The Basics." To get a copy, write to:

US Army Material Command Packaging, Storage,
and Containerization Center
11 Midway Road
ATTN: SDSTO-TP-P
Tobyhanna, PA 18466-5097
Or call: DSN 795-7679 Commercial (717) 894-7679

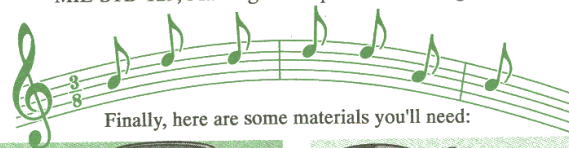
While you've got Tobyhanna on the line, or have your pen poised, ask them to send you their FAST PACK pamphlet. The pamphlet will tell you about the four styles (30 different sizes) of FAST PACK reusable shipping boxes. The supply authority for ordering FAST PACKs is Appendix A of CTA 50-970.

How to Become

a Perfect Packer

Next, make sure you have an up-to-date library with these pubs:

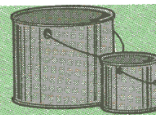
- TM 746-10. General Packaging Instructions for Field Units;
- TM 38-230-1, Preservation and Packing, Vol 1;
- TM 38-230-2, Preservation and Packing, Vol 2;
- MIL-STD-129, Marking for Shipment and Storage.



Finally, here are some materials you'll need:

Corrosion preventive
compound (protects
machined ferrous
surfaces):

Container Size NSN 8030-00-
1-gal can 244-1297
5-gal pail 244-1298



Tape, pressure-sensitive
(for sealing and
waterproofing):

Roll Size
4 in x 60 yd
NSN 7510-00-890-9875



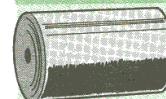
Shrouding material, plastic
(skid-mounted and palletized items):

Roll Size
12 x 100 feet
NSN 8135-00-579-6489



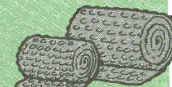
Barrier material, grease/waterproof
(wrapping items
covered by
corrosion preventive):

Roll Size 36 in x 100 yd NSN 8135-00-753-4681



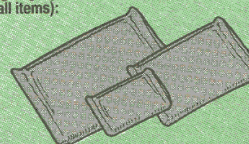
Bubble pack material
(for wrapping,
cushioning, and
immobilizing):

Roll Size NSN 8135-00-
¾ in x 24 in x 500 ft 142-9016
½ in x 24 in x 250 ft 926-8991



Shipping bags, padded
(for small items):

Size Qty NSN 8105-00-
6 x 10 inches 250 290-0340
7¼ x 12 inches 100 290-0342
9½ x 14½ inches 100 281-1168



PERFECT
PACKING WILL TURN
THAT PUDDLE BACK INTO
A POOL OF CASH

UH-HUH!

Splicing Kit for O-Rings

NSN 4940-01-131-1915 brings an O-ring splicing kit that has four different diameters of rubber O-ring rod material. Appendix A of CTA 50-970 is your authority to order.

Here are the stock numbers and sizes to replace the material:

NSN 9390-01-084-	Size
0951	3/32-in
0952	1/8-in
0953	3/16-in
0954	1/4-in

Get a box of ten 1-oz tubes of O-ring adhesive with NSN 8040-00-142-9193. Keep it refrigerated — it'll last longer if you do.



Handy Dandy Shop Items

HERE'S A LIST OF ITEMS YOU MECHANICS MAY NEED AROUND THE SHOP.



Plastic strap, ratchet type	
Length	NSN 5975-00-
6 5/16 inches	074-2072
13 1/4 inches	156-3253
10 13/64 inches	570-9598

Item	NSN
Ground cloth, plastic OD green, 4 x 5-ft	1015-00-073-5378
O-ring fabrication kit	4940-01-131-1915
RTV silicone rubber adhesive, 3-oz tube	8040-00-843-0802
Buffing compound, rubber, 16-oz can	2640-00-403-5539
Tape, electrical, 3/4-in wide x 108-ft roll	5970-00-419-4291



Automated Reporting

Now there's a computer program to help you keep up with your DA Form 2406 readiness reporting information.

To get a copy of the software and the operator's manual for your battalion, write to:

USAMC

Material Readiness Support Activity

ATTN: AMXMD-RA

Lexington, KY 40511-5101

This menu-driven program uses the readiness information from the DD Form 314 to automatically calculate and print your DA Form 2406, both the front and back sides.

QDR CUCV Glow Plugs

Some Wellman Thermal Systems, Inc., glow plugs (PN 6A843G070 CAGE 58823) have been failing. Wellman plugs have copper-colored connectors. If yours have failed, send a Quality Deficiency Report SF 368 to DLA-DCSC, ATTN: DCSC-AFB, Columbus, OH 43216-5000. Then order AC Delco glow plugs on a DD Form 1348-6 using PN 13G and CAGE 70040 from RIC S9C.

Ice Scraper

NSN 7920-00-045-2556 gets an ice scraper with a 5 1/2-in blade and a squeegee. Appendix A of CTA 50-970 is your authority.

M939/M939A1 Thermostat

Use NSN 6685-01-141-0907 to get the thermostat for your 5-ton truck. You'll need it this winter.

M939A2 Arctic Belt

Get an arctic fan belt, NSN 3030-01-287-3155, for cold weather. It stands up to "Old Man Winter." 'Course, take off the arctic belt in the spring and use the regular belt, NSN 3030-01-271-3754. Keep spare belts laid flat in a cool, dry place. Never hang 'em on a nail.

M1010 Charging Mod Kit

If your ambulance's front battery is always discharged, get your DS to put on charging modification kit, NSN 2920-01-260-7504. Send requisitions to RIC AKZ by 31 Dec 92 to get a free kit. Include with each requisition the vehicle's mileage, VIN and date of manufacture. Use a signal code of "D" or "M" for free shipment.

Get Battery for Light

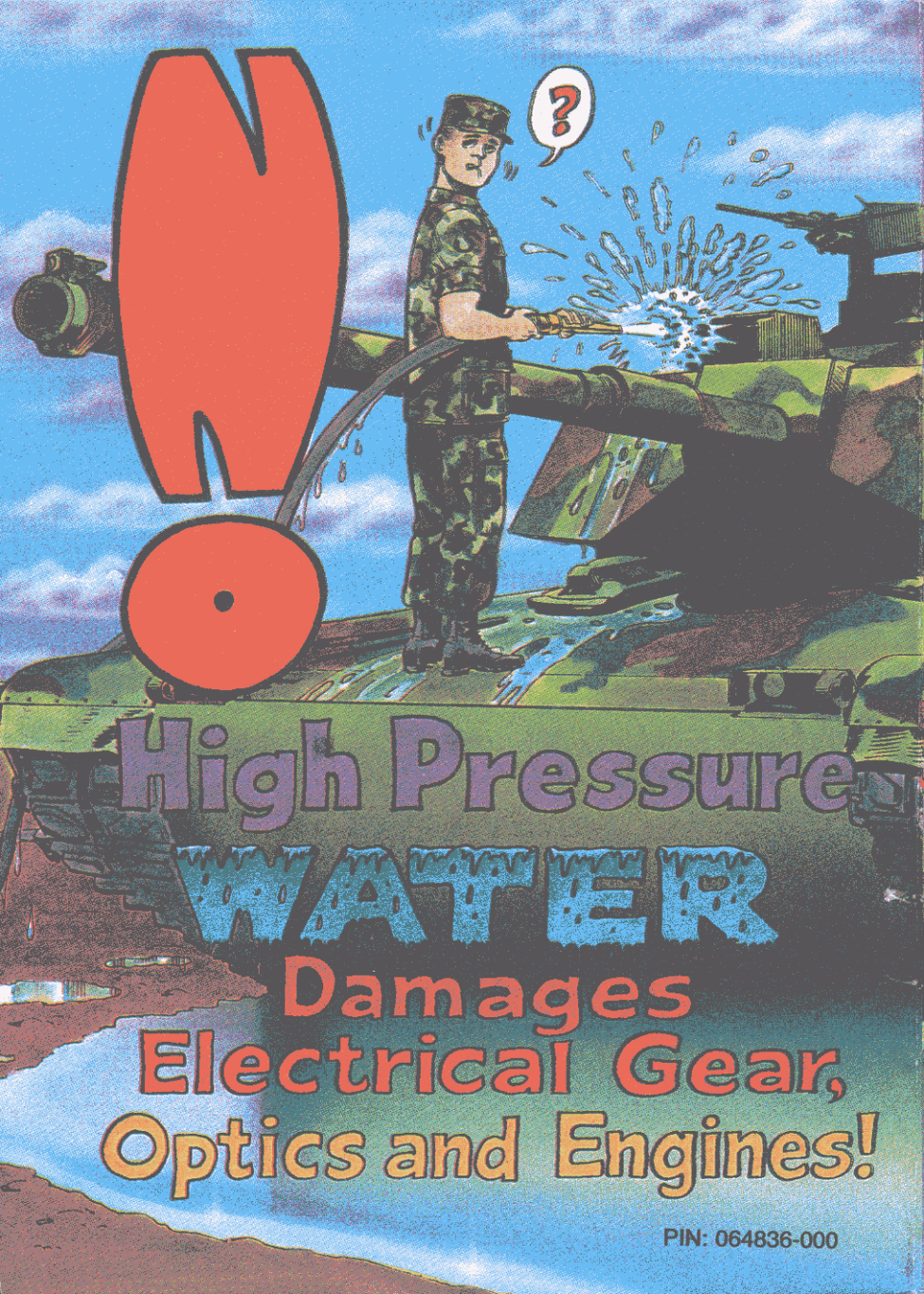
You won't get an alkaline battery with the distress marker light, NSN 6230-00-938-1778. Order the battery with NSN 6135-00-073-8939.

Distribution: To be distributed in accordance with DA Form 12-34-C-R, for TB-43-Series

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

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