

Issue 332

PS

★  
July  
1980

# THE PREVENTIVE MAINTENANCE MONTHLY



MURPHY  
ANDERSON

I NEED  
YOUR  
BEST PM  
EFFORTS!



# The GREAT EST!

## STATUS LIST

### TRAINING EXTENSION COURSE



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THE  
**PREVENTIVE  
MAINTENANCE**  
MONTHLY

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PS wants your ideas and contributions, and is glad to answer your questions. Name and address are kept in confidence. Just write to:

MSG Half-Mast  
PS Magazine  
Lexington, KY  
40511

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FIREPOWER

Improved HAWK...

The

# Bird Flies When PM's Wise

WISE  
PM  
KEEPS  
ME UP  
UNK!

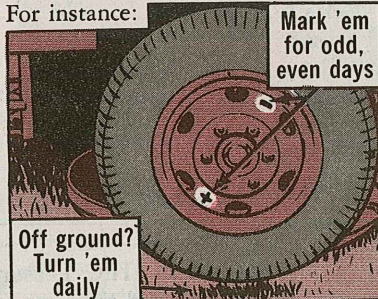
SCRAWK!!

SAME  
WITH ALL  
MY HAWKS!

Small problems with Improved HAWK system components can keep your birds down and give you a headache to boot.

So, take an aspirin and read up on a few ways to prevent the problems.

Ignoring a few minutes of easy PM on your M390 and M514 trailers can make lots of work for you and others. For instance:



When trailers are up on their jacks, their wheels must be turned daily. You leave the "ground" side up after you turn them.

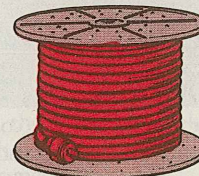
If you don't turn them, bearing grease settles to the bottom...and the bearings will be damaged when the trailer rolls.

A good way to keep your "ups" and "downs" straight on the wheels is to

2

Data cables (Part No. 10108181-1) should be checked when you get them

Data  
cables...  
check 'em  
first!



issued to you. Some cables are wired

## Data Cables

wrong. The most common fault is an open lead. With others, you can get smoke or damage.

Check them out with your AN/TPQ-29 simulator cable tester by using procedures in the simulator TM. When the TPQ-29 is not available, ask Support to check the cable. If the cable's good, use it. If not, get it repaired.

## Trailers

mark the top and bottom of the rim with a plus and a minus sign or a 1 and a 2. Keep the plus (+) or 2 up on even-numbered days and the minus (-) or 1 up on odd-numbered days.

Another easy one: Release the brakes when the trailers are emplaced.

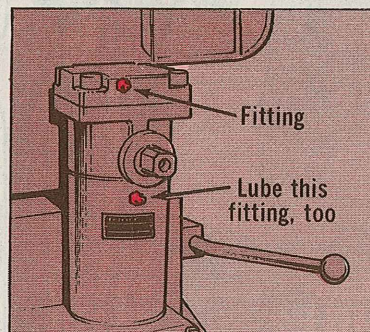


If you leave them on, the brakes will freeze to the drums. With the M390, you won't go anywhere when you try to haul your IPAR, ICC, IHIPR or PCP. And, somebody'll have a lot of work to do.

With either trailer, you've got to lube and exercise the jack legs when they're not in use. They, too, freeze up,

and getting them loose takes work.

Overlooking a lube fitting can cause unnecessary wear or freeze-up, too. So,



remember the hidden one on the jack leg of the M514. It's just about a handspan down from the visible fitting at the top of the jack leg, but it's hidden under the gear box.

Another way to prevent freeze-up is to run the jack legs up and down after you lube them. That helps distribute the grease over a wide area.

3

PS MORE



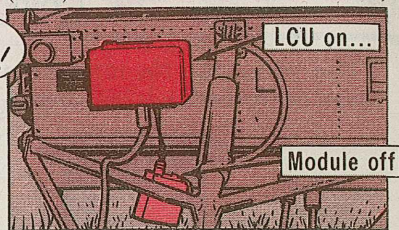
BEFORE YOU  
DISCONNECT YOUR  
GTC-25, TURN ITS  
POWER OFF-- AND  
KEEP IT OFF!

B'LIEVE IT,  
SOLDIER!

THAT WAY YOU'LL  
SAVE YOUR BATTERY!

! GULP!  
YESSIRS!

When the launch control unit (LCU) is mounted on the launcher,



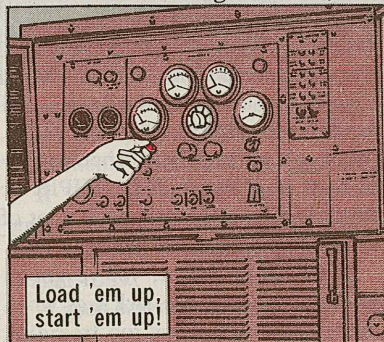
your AN/GTC-25 commo module must come off (no room, etc.). That leaves you with a GTC-25 which has no place to go.

There are plans in the works to put a mount on the opposite side of the launcher, which should cure the problem.

However, if you've got to save time that you'd use for removing or

TM 5-6115-545-12 (Jun 73) tells you you can run your generators for up to 5 minutes without a load. Page 2-22 of Change 3 spells it out.

The reasons are good. First, run-



## AN/GTC-25

reinstalling the GTC-25, try this:

Attach a wire or light chain to the



connectors on each end of the GTC-25 cable. Make the wire an inch or so shorter than the cable length between the connectors.

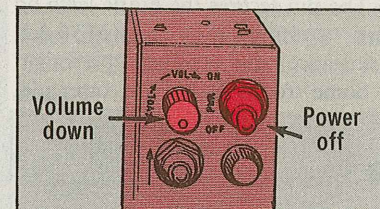
Just loop the wire through the screws that hold the clamps on each connector.



Then, let the GTC-25 dangle by the cable, in place. The wire takes up the strain.

Coupla' points on the GTC-25:

Before you disconnect it, turn its power off and its volume down. Keep



the power off. That way you won't drain or short the battery.

Before you reconnect it, be sure the power's off and the volume's down. That prevents burning the cable or damaging the headset cord.

## 60-KW Generators

ning 'em without a load will knock the governor out of adjustment.

Then, you can burn valves or coat them with carbon.

And, do it long enough and you're courting a rebuild.

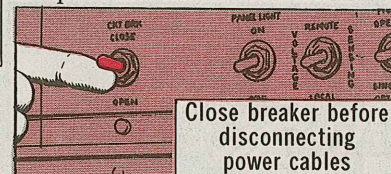
Also, you should use the load bank when you test a generator. Same reasons. Follow the step-by-step.



starting procedures in chapter 2, Change 3 of the TM.

Now that you're loaded up, remember this:

If your generator is powering an I HAWK system component, turn off the generator before you disconnect the power cables.



If power is on when you disconnect, it can damage cables, connectors, equipment...and even people.



# I-HAWK

One relatively small cotter pin can prevent one big mess when you hit the road with Improved HAWK system components.

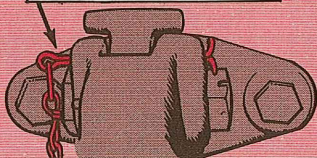
The pin secures the pintle latch on the prime mover (M36A2, for instance) after you hook up a trailer.

Some troops forget the cotter pin,

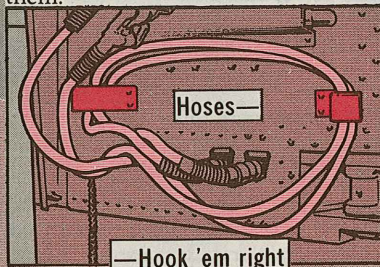
Remember the  
cotter pin

and the pintle pops open and lunette breaks free. Some troops remember the pin and sleep well at night.

Towing a load? Pin must  
be in place like this

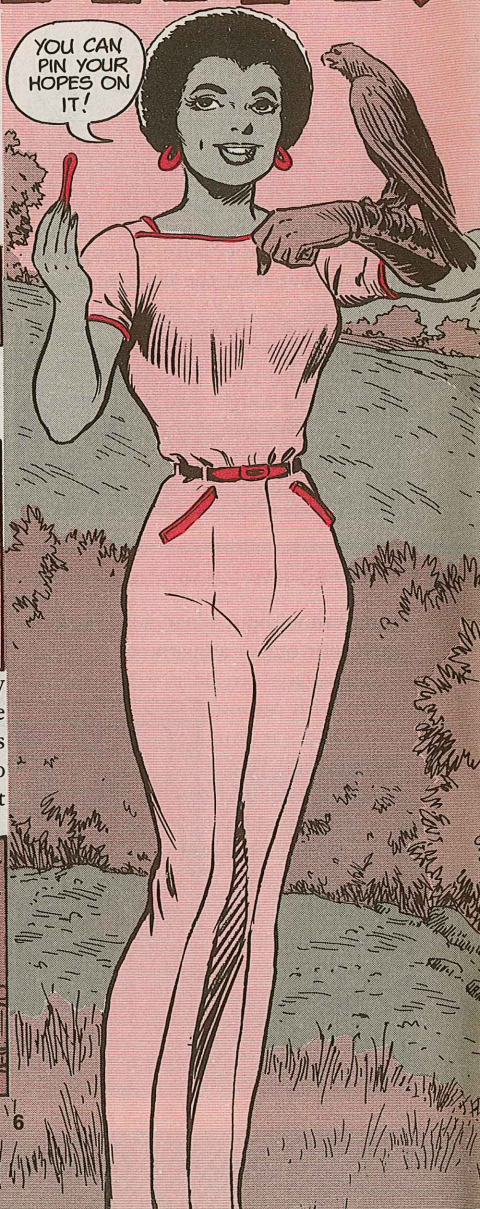


Other hook-ups you've got to worry about are the hoses between the launcher and the prime mover. It's easy to mix up the hoses, but if you do the brakes will lock when you hit them.



—Hook 'em right

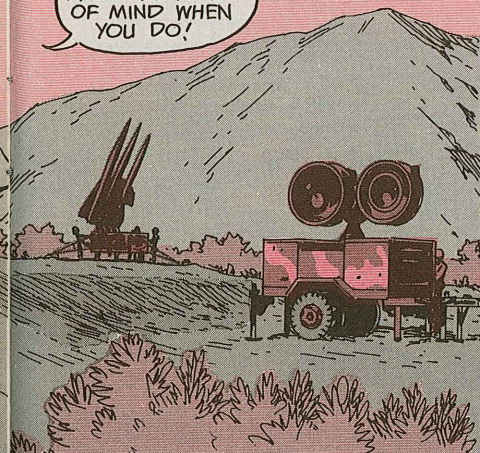
YOU CAN  
PIN YOUR  
HOPES ON  
IT!



# Hook-ups

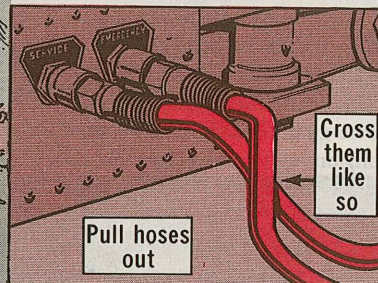
SCRR-RAWWK!!

AND HAVE PEACE  
OF MIND WHEN  
YOU DO!



Here's what to do for the paint job or if you don't have or don't want painted connectors:

With the truck backed up for launcher hookup, pull the launcher hoses marked "EMERGENCY" and "SERVICE" straight out toward the truck.

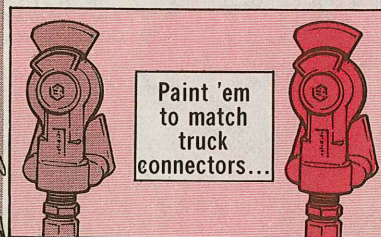


Pull hoses  
out

Cross  
them  
like  
so

Now, cross the hoses. Right! Cross them.

When they lock that could be bad news for the launcher. It could turn over, skid, jackknife, catch fire or slam into another vehicle.



Paint 'em  
to match  
truck  
connectors...

Some units fight the problem by painting the connectors on both the M36A2 and the launcher red and yellow. Red goes to red on the truck, etc.

This means the "SERVICE" hose is connected to the left side connection on the truck and the "EMERGENCY" hose connects to the right side.

It's that simple. Cross the hoses and connect them. For added safety, color code the connectors and be sure you match the colors on the hookup.

Another hookup hazard on the launcher comes when you back up.

The M36A2 will jackknife with the launcher faster'n you can say it. When that happens, chances are high that you'll break the launcher's nearest outrigger and/or the umbilical.

The answer—never back up without a guide. A hurried gamble could be expensive.

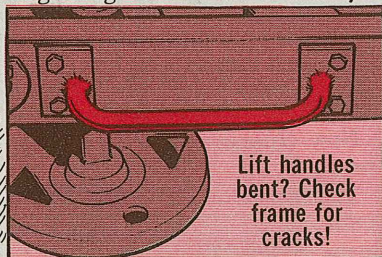


M167A1 Vulcan ADS...

# A LITTLE Look'll DO YA'

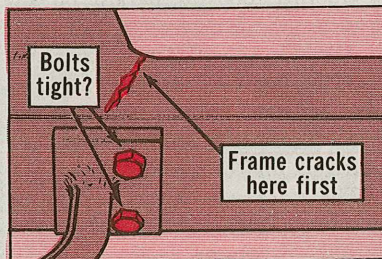
Sometimes a quick look is all it takes to avoid big or little trouble on your M167A1 Vulcan ADS.

Next time you rest your eyes on the carriage lift handles, for instance, stop long enough to notice whether they're



bent or dented. If they are, eyeball the carriage frame for cracks.

Chances are that if the handles are bent, the frame will be cracked at the first cross support...where the rear of the handle attaches to the frame.

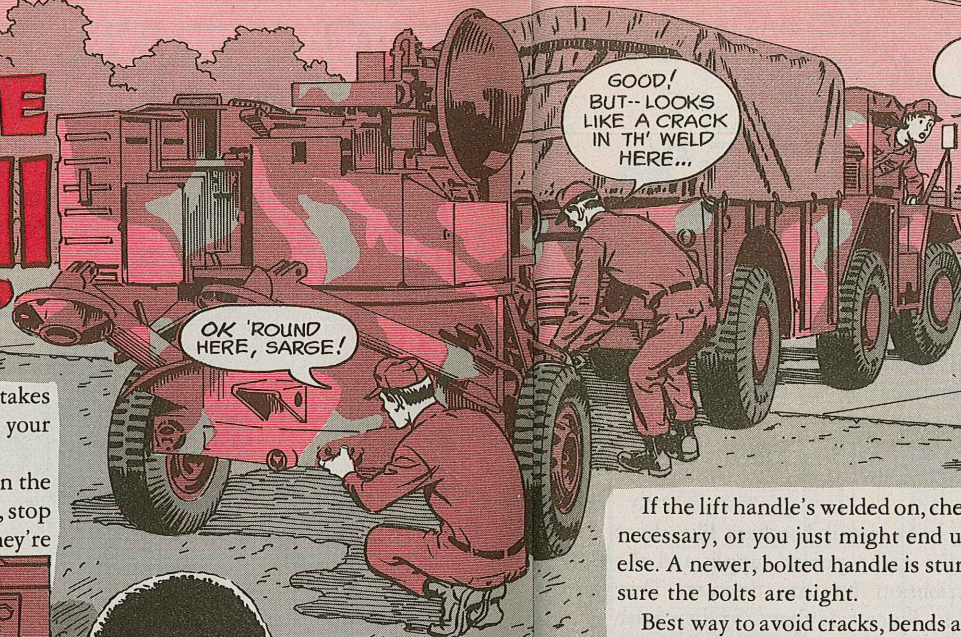


8



A CRACKED FRAME ON A CROSS-COUNTRY TRIP CAN LOSE YOUR LOAD...

IF YOU FIND CRACKS, CONTACT YOUR SUPPORT!



OK 'ROUND HERE, SARGE!

GOOD! BUT-- LOOKS LIKE A CRACK IN TH' WELD HERE...

UN-UNCLE S-SAM?

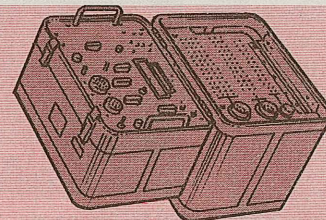
HAVE YOU BEEN USING A GUIDE WHEN YOU BACK-UP, GENTLEMEN?

If the lift handle's welded on, check for cracks in the weld. Get 'em replaced, if necessary, or you just might end up with a handle in your hand...and nothing else. A newer, bolted handle is sturdier and just needs an occasional check to be sure the bolts are tight.

Best way to avoid cracks, bends and dents is for the driver to use a guide when backing up. Any prime mover can jackknife with the M167A1. If you haul with the Gama Goat, you almost surely will. So, you need a guide to prevent damage...to the carrier and the VADS.

## TEST SETS

Another way or two to look for trouble is to use the AN/MWM-3 test set on the armament system components and the AN/TPM-23 test set on the AN/VPS-2 radar. That's a job for organizational level maintenance types.



MWM-3  
Test Set

Some mechanics don't use the test sets, even though the sets find faults which can be repaired at the unit.

Trouble is, if components go to support and support finds a unit level repair job, back it comes to the unit. That's a waste of time, work and money. Embarrassing, too.

9



**BLAST!** RADAR'S  
ON TH' FRITZ!!

SOUNDS LIKE YOU'VE  
OVER-RADIATED,  
SOLDIER!

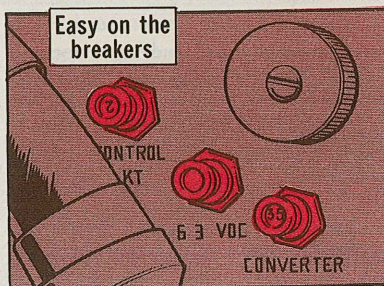
READ AND  
HEAD YOUR TM  
CAUTIONS!

## RADIATING

TM cautions and warnings read loud and clear on radiating and over-radiating, but somebody's not reading them. Radar receiver-transmitters, range computers and other components still are being damaged.

Cautions apply to both problems, but over-radiating has the No. 1 slot in damage. Read and heed the TM. The word is for real.

## CIRCUIT BREAKERS



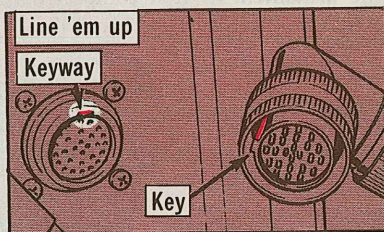
System circuit breakers like those on the radar power supply and the distribution box are delicate. They break. Since you have to live with them, careful handling is a must.

Take an extra second when you line up on a breaker. Push it straight in easy-like, and it'll last longer.

## OLD REMINDER

It's an old story but it needs re-telling for those who may have missed it:

Line up the key and the keyway before you push or try to force a connector into place. That saves a lot of damage to the pins and other parts.



## TIME SAVER

Org Mech, ol' buddy, when you turn a component in to support, turn in all parts...worn out, damaged or otherwise.

If you don't, support'll send it back for the parts or for some paperwork to tell what happened to them.

?

YEAH -- THAT'S UNCLE, ALRIGHT --  
HE'S PROTECTING  
HIS BUCKS!

OK, NOW FOR  
**THE LAST LOOK-**

Eyeball your Vulcan's DA Form 2408-1 and DD Form 314 to find out when its next service or lubrication is due.

1. Nomenclature				2. Registration or Serial Number		3. NEXT SERVICE OR LUBRICATION DUE			
4. TYPE LOG				5. TYPE		6. HOURS/MILES		7. DATE	
TRK CARGO M35A2				1436725		5		16325	
DATE OF ENTRY				READING HOURS		READING MILES		TOTAL FUEL ADDED (Daily)	
16 JUN				80		16110		30	
OIL CHANGED OR ADDED (Ch or dte)				OPERATIONAL STATUS		SERVICE OR LUB		OTHER ACTIONS	
EQUIPMENT IS EQUIPMENT OPERATIONAL				SIGNATURE OF OPERATOR OR CREW CHIEF		TYPE		COMPLETE	
✓ T Smith									
NONAVAILABLE DAYS				DRO MAINT		SUPPORT MAINT		SIGNATURE OF INDIVIDUAL MAKING ENTRIES OTHER THAN OPERATOR OR CREW CHIEF	
								S. Bottom	

DA Form 2408-1

When it's lube time, then it's "do it time." Put it off or don't do it properly, and you'll be seeing rust. Sure won't help the weapon any...and how would you explain it to your ol' Sarge?

## M167A1 Vulcan Dust Boot

Dear Half-Mast,

We can't get the large dust boot for the toggle switch on Unit 6 (radar distribution box). Our PLL man says the word he gets is that the NSN in TM 9-1005-286-20P (Oct 74) is wrong. What's the story?

SP5 A. H.

Dear Specialist A. H.,  
Go with NSN 5930-00-020-5132 for the large boot, only this time put Code 2B (no substitute) in the advice code block of your request.

There was a mix-up in boots and stock numbers, but the "no substitute" route should get it.

THE WHEELS  
ARE DOING THEIR  
BEST TO GET IT  
STRAIGHTENED  
OUT QUICK-LIKE!



No, No, Definitely No!

# Keep SUBS

# Away from Weapons!



Some things being used to clean, lube and protect weapons are creating more problems than they solve, good intentions or no.

Examples:

Some troops use potent oven cleaners (like Easy-Off) to remove dirt, crud and maybe a speck of rust from their weapons. Works great.



However, the cleaners also ruin or remove the weapon's finish. Now,

that's a cleaning job that could cost you a month's pay!

TM's tell you to use LSA, PL-S or other specified lubes. Some troops



prefer WD-40 or something like it. It looks pretty, it sprays on and it's fast and easy to apply.

But...it won't last like LSA. It won't wear like LSA, and it's not LSA. You come up short on rust protection and wear prevention. And, it's not approved for Army weapons.



Another good intention which makes big problems is the taping of weapons to protect against moisture or transportation damage. The taping is usually followed by putting the weapons in a sealed bag.

The tape does 2 things:

It traps moisture in the weapon, which creates rust and other damage.

It cracks or breaks the handguards of the M16A1 rifle and M203 grenade launcher when it's pulled off.

So what to do: Use the tried and true standbys for cleaning and lubing—in

your TM's. They work, and they don't damage.

Let your weapons breathe by keeping open ports free. If you want to protect them from moisture in the field, wrap them in a poncho or plastic, or keep them in a shelter, if possible.

## The New "S" Barrel



Leaning your weapon against the open ramp or ramp door of an armored personnel carrier like the M113A1 can give your barrel a beautiful "S" curve.

You can shoot around corners without exposing yourself...or have the barrel blow up in your face.

The point is, weapons are damaged or destroyed when someone hurriedly closes the ramp door or ramp on them. Find a safer place to leave them...maybe on your shoulder or inside the APC.



## M880-Series 1¼-Ton Truck...

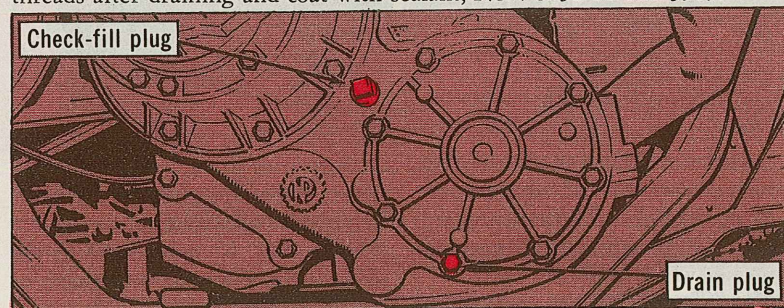
## Transfer Oil Level Check



LO 9-2320-266-12 (Apr 77), Note 7, tells you to check transfer oil every 6,000 miles or 6 months and to drain-refill every 24,000 miles or 24 months.

But where do you check the oil? What's the right oil level? Where's the drain plug? Your TM's and LO don't tell you.

The drain is the bottom bolt on the rear of the transfer cover. Clean the bolt threads after draining and coat with sealant, NSN 8030-00-822-3505.

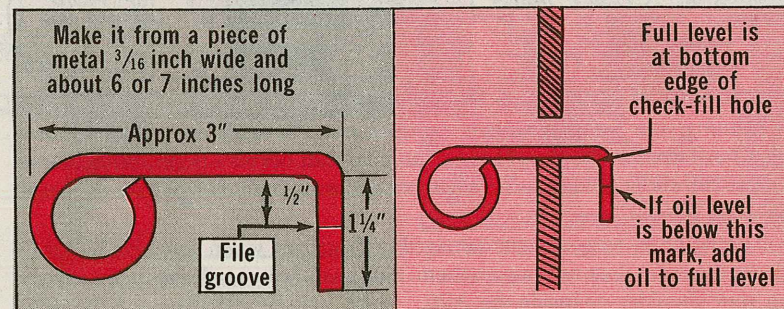


Check-fill plug

Drain plug

The check-fill plug is just above the housing cover at the rear of the transfer. Check the oil level when the transfer is cold. The full mark is at the bottom of the check-fill hole. But the level's OK at ½ inch below the hole.

You can make an oil checker if your finger won't fit in the hole.



Make it from a piece of metal  $\frac{3}{16}$  inch wide and about 6 or 7 inches long

Approx 3"

$\frac{1}{2}$ "

1  $\frac{1}{4}$ "

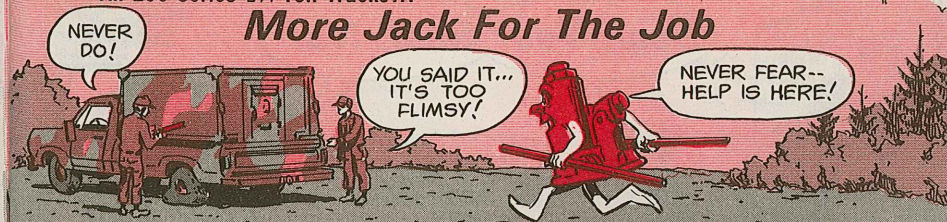
File groove

Full level is at bottom edge of check-fill hole

If oil level is below this mark, add oil to full level

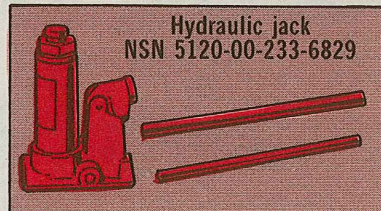
## TM-266-Series 1¼-Ton Trucks...

## More Jack For The Job



The rear end of those M880-series trucks carrying commo shelters and the contact maintenance and telephone maintenance trucks is mighty heavy.

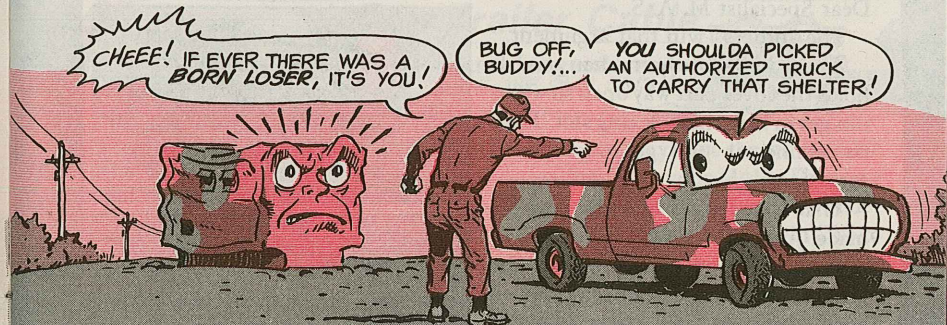
If you need a hydraulic jack for those heavyweights, you can get a 3-ton capacity job with NSN 5120-00-233-6829. You need your command's OK to order the jack. This jack comes with a handle.



Hydraulic jack  
NSN 5120-00-233-6829

There's more info on this deal in TB 43-0001-39-3 (Oct 79), page 2-85, para 2-11c.

## Beware of Loser!



Are you sure you've got the right truck for the job? Is that really an M883, M884 or M885 you're using to haul your commo shelter around?

It better be—or you stand a good chance of losing your shelter! Those're the only M880-series 1¼-ton trucks authorized to carry a shelter—because they're the only ones with the shelter tiedown kit. They've also got the auxiliary rear springs and suppressed ignition system.

Maybe you got the wrong truck because of a slip-up in your MTOE or a goof in the supply system. If so, don't use that truck for shelter transport.



**Seal, Yes? Seal, No!**

THIS IS TOO SEAL-Y FOR ME!!

**Dear Half-Mast,**

What's the straight poop on putting a rubber seal in a trailer's inter-vehicular cable connector cover? This's the cable on such trailers as the

1/4-ton, 3/4-ton and 1 1/2-ton cargo jobs. Some say a seal's required to keep water out. Others say a seal does more harm than good.

**SP4 M. A. S.**

Dear Specialist M. A. S.,

The "others" win that argument.

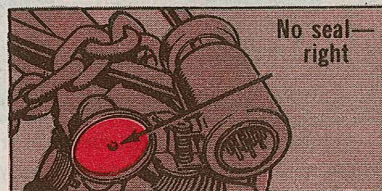
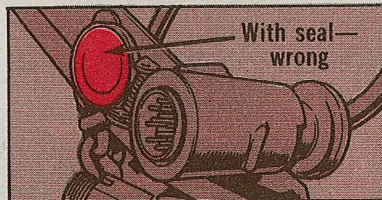
A seal does more harm than good. It holds the cover part way open so water can get in thru the indexing slot. Then the connector pins go to pot from corrosion.

That cover seals fine the way it's made. Just make sure:

—The edge of the cover and the rubber part of the connector are in good shape so they come together clean 'n' true.

—The cover spring is still strong enough to hold the cover down snug.

—The cover rivet is tight.



IF THE RIVET'S LOOSE, GIVE IT A COUPLE OF TAPS WITH A BALL PEEN HAMMER!

16

## M149/M149A1 Water Trailers... **Air Hose Fix 'n' Save**

Why blow 10 or 12 bucks for a complete air brake hose when your support may be able to fix your old one for a coupla bucks or so?

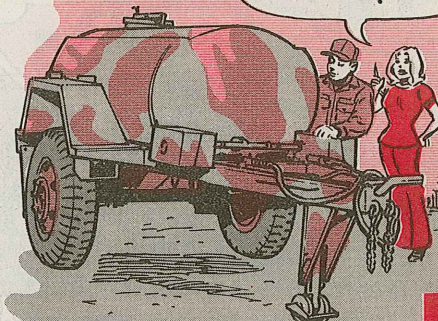
The demand for hose assemblies for M149 and M149A1 400-gal water trailers suggest that a lot of people are passing up the fix 'n' save angle as spelled out in TM 9-2330-267-14 (Jun 71) w/Ch 1 & 2.

No matter what the AMDF says, these hoses can often be fixed cheaper by your DS than you'll pay for the complete assembly:

4720-00-446-3146 (for M149 with front-mounted reservoir)  
4720-00-069-9338 (for M149 with rear-mounted reservoir)  
4720-01-031-4387 (for M149A1, right side)  
4720-01-031-4386 (for M149A1, left side)

WE NEED A NEW AIR BRAKE HOSE ASSEMBLY, CONNIE!

NO SOLDIER!! SUPPORT CAN FIX THAT HOSE FOR A LOT LESS!



HERE ARE ASN'S FOR ASSEMBLIES-- IF YOU REALLY NEED 'EM.

## 1/4-Ton Trailer Cable

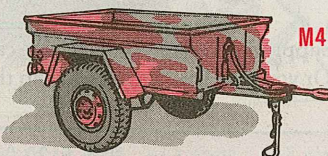


WHAT'S UP, BUDDY?

TH' CABLE I NEED ISN'T REALLY XB LIKE THE SMR SAYS!!

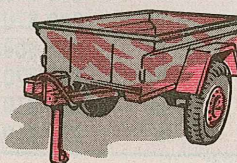


Whether you've got the M416 1/4-



**M416**

ton trailer or the new M416A1, the inter-vehicular cable may be giving you a headache.



**M416A1**

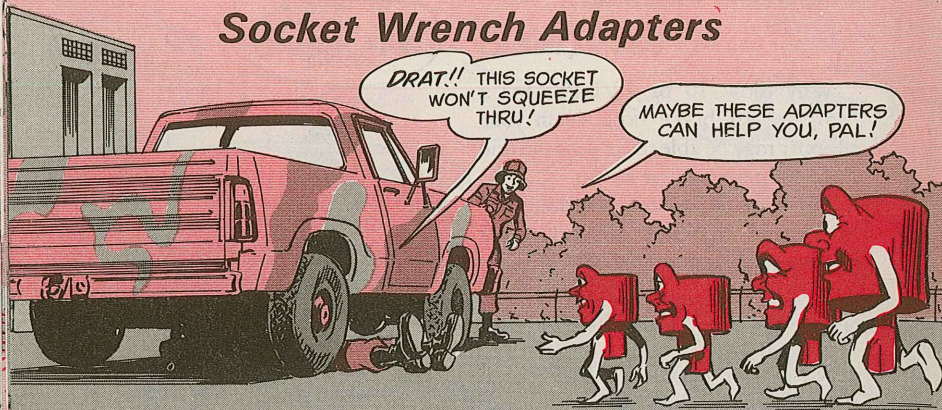
First, you may have the wrong cable—too long—on your M416. The right cable—60 inches long—comes under NSN 2590-00-855-9304. It's in Ch 3 to your TM 9-2330-251-14 (Oct 70).

Second, the same cable's used on the M416A1—but it's listed with no NSN in TM 9-2330-251-14-1&P (Apr 79). And it's coded XB in the SMR Code, leading you to believe that it's not so easy to get. Not so. NSN 2590-00-855-9304 carries Acquisition Advice Code "D" in the AMDF, meaning no sweat in ordering. So make a note for Item 1, page E-7, in your -14-1&P TM.

17



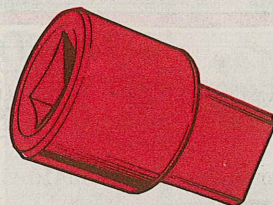
## Socket Wrench Adapters



There may be times when Army-issue tools don't quite fit the need—especially when you're working on commercial-design tank-automotive equipment.

Like maybe you need to use your 1/2-in drive torque wrench, but the 1/2-in drive socket is too fat to squeeze in where the nut or bolt is. You could use a 3/8-in drive socket of the same wrench size, but maybe your 3/8-in drive torque wrench doesn't go up to the torque needed.

In such cases, you might solve your problem by using socket wrench adapters to mix 'n' match your torque wrenches and sockets. For instance, an adapter will reduce your 1/2-in drive torque wrench to a 3/8-in drive, so you can use a 3/8-in drive socket.



Use  
socket  
wrench  
adapters

There're 8 different adapters in the GSA Supply Catalog for Tools. These can be authorized under CTA 50-970 (Jun 79). Or you may find 'em already on the shelf in your Self-Service Supply Center.

PICK OUT  
WHAT YOU  
NEED...

Female End	Male End	NSN 5120-00-
3/8-in	1/4-in	227-8095
1/4-in	3/8-in	224-9219
1/2-in	3/8-in	240-8702
3/8-in	1/2-in	240-8703
3/4-in	1/2-in	227-8088
1/2-in	3/4-in	144-5207
1-in	3/4-in	227-8103
3/4-in	1-in	227-8104

## Socket To 'Em!

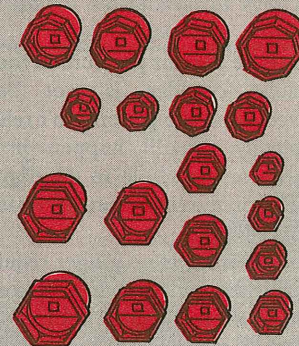


Good news! You can now get a wide range of big socket wrenches for those wheel bearing nuts on your vehicles.

Wrench set, NSN 5120-00-169-4586, has been added to your No. 1 Common Shop Set. SC 4910-95-CL-A74 (Sep 79) lists it on page 38.

This set has 19 socket wrenches ranging in size from 2 3/32 inch thru 4 7/8 inch. You get both 6- and 8- point sockets rated for 600 lb-ft torque.

SC 4910-95-CL-A74



THEY'RE  
ALL 3/4-in  
DRIVE!

Home and complete address

U.S. Postage Paid  
42 USC 1973dd

PAR AVION

OFFICIAL ELECTION BALLOTING MATERIAL—VIA AIR MAIL

TO

Government Form 18  
Rev. 6-67  
Printed at the U.S. GPO: 1967 O-345-100

VOTE!

This is  
Election  
Year—



AHA!

## 5-Ton Brake Lockup?

SMALL WONDER  
THE BRAKES LOCK UP...  
YOU DON'T HAVE  
A BREATHER  
HOLE!

RIGHT--  
YOU COULD ORDER  
A NEW COUPLING...

...BUT  
A DRILL CAN  
FIX ME!!

Having troubles with the brakes locking up on your 5-tonner? You've done everything the troubleshooting chart says to do and the brakes still lock up?

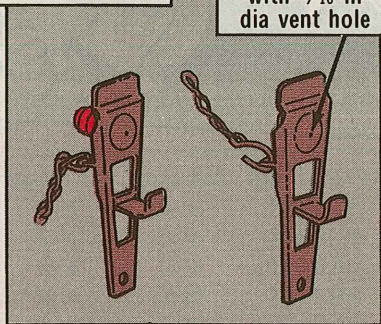
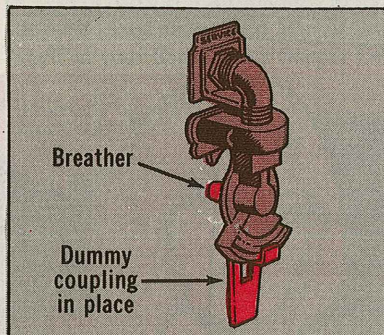
Could be that air pressure in the air hydraulic cylinder is not being relieved—and the piston can't release completely. That'll happen if the breather or vent hole in the dummy coupling on the right front of the truck is clogged.

The breather is no longer required or furnished with the dummy coupling, but if the truck has a coupling with a breather, make sure it's not clogged.

If there's no breather, look for a  $\frac{1}{16}$ -in diameter hole in the center of the bulge and make sure it's open. If there's no breather or vent hole, NSN 2530-00-740-9445 will get you the dummy coupling with the vent hole. Or, just drill the hole.

Dummy coupling  
with breather

Dummy coupling  
with  $\frac{1}{16}$ -in  
dia vent hole



Make a note of the problem and solution in the troubleshooting chart in your -20 TM.

## Wrecker Throttle Cable NSN's

YAY!

THANKS,  
CONNIE!

HEY,  
5-TON  
WRECKER  
TYPES...

JOT THESE  
THROTTLE  
CONTROL CABLE  
NSN'S DOWN!

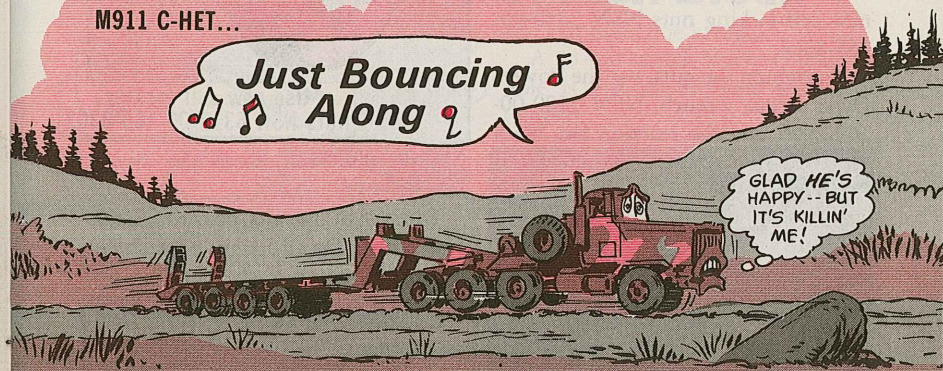
Finding the remote throttle control cable for your 5-ton wrecker truck or wrecker-tractor truck may not be easy. So jot down this info in your TM-211-series or TM-260-series parts manual. (Note, in 2 applications, the cable must be shortened. Use your old cable to figure the exact length needed.)

Wrecker	Cable NSN
M246	2590-00-405-9763 *
M246A1	2990-00-411-9536
M246A2	2590-00-911-5628
M62	2590-00-159-8935 *
M543	3830-00-546-4762
M543A1	2590-00-159-8935
M543A2	2590-00-912-3110
M816	2590-00-070-1003
M819	2590-00-405-9763

\* Cut as needed

M911 C-HET...

Just Bouncing  
Along



That's how it goes with the M911 C-HET between 35 and 40 MPH. It bounces!

Use your head and your toe...save your seat and your truck. Stay below or above the bouncy speed zone whenever you can.

The front tires set up a "harmonic imbalance" which causes the bounce. If it gets real bad, changing front tires may help.

The Army's coming out with steel belted radials for front tires. When the NSN is available we'll give it to you.



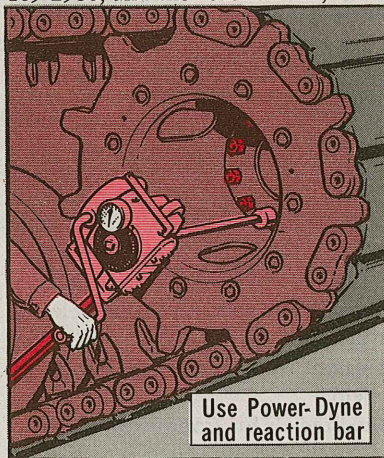
## Hub Nuts on the Loose?



The hub locknuts, particularly the ones on the left final drive sprocket hubs, are working loose during vehicle operation.

To keep the nuts tight, install the new self-locking nuts NSN 5310-00-165-8303.

To tighten the nuts, use the Power-Dyne torque wrench, NSN 5120-00-169-2986, and the reaction bar, NSN



Use Power-Dyne  
and reaction bar



Use new self-locking  
nuts NSN 5310-00-165-8303

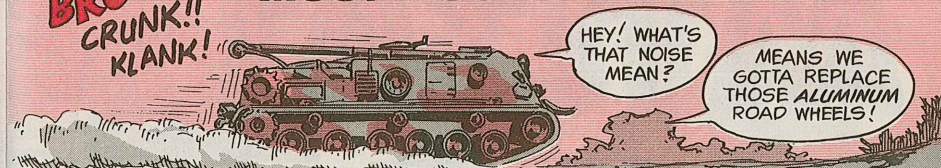
5120-01-008-3632, from the No. 2 Supplemental tool set.

For each of the nuts, go through this 5-step drill. Do all 5 steps on each nut before you go on to the next.

1. Tighten the nut to 450-470 lb-ft (wet torque).
2. Leaving the torque setting applied, wait for one minute. During this minute the torque will loosen between 20 and 30 percent.
3. Retorque to 450-470 lb-ft.
4. Now wait again for a minute while the torque backs off.
5. Retorque again to 450-470 lb-ft.

**BRONG!**  
**CRUNK!!**  
**KLANK!**

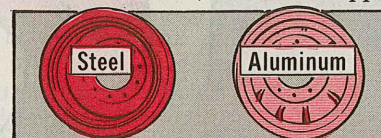
## M88/M88A1 Wheels



Still mixed up about what kind of roadwheels to use on your M88/M88A1 recovery vehicle?

This is the way it goes down...

The aluminum roadwheels, NSN 2530-00-784-9292, now in the supply

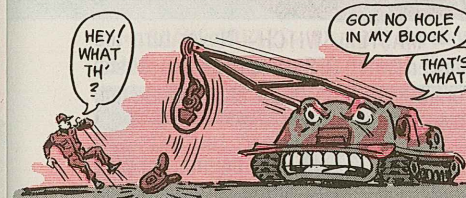


system should not be used.

If you have any aluminum wheels already on the vehicle, watch them carefully. Leave them alone as long as they give good service.

However, when they start to wear out, replace them with steel roadwheels, NSN 2530-00-701-3976. They're for the M60A1 family of tanks. The aluminum road wheels are thicker than steel ones. When they're mounted on an M88/M88A1, the center guides won't track right.

## M88/M88A1 Snatch Block



You M88/M88A1 crewmen gotta learn the snatch block snatch.

Snatch up your 25-ton snatch block, and see if there's a hole already drilled and tapped for a screw.

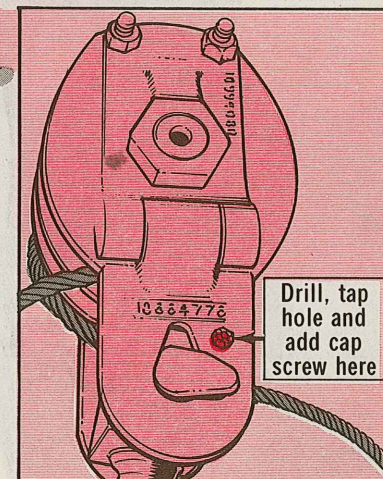
If there is, make sure the cap screw, NSN 5305-00-269-2798, is in place.

Without the screw, the hinge can open when there's no load and let the snatch block fall...and that could really drive somebody into the ground.

Call your company mechanic if there's no hole in the block. He can drill and tap a 3/8-24 UNF-2A hole and

you can order the screw.

A 25-ton snatch block without the hole is just an accident waiting to happen.

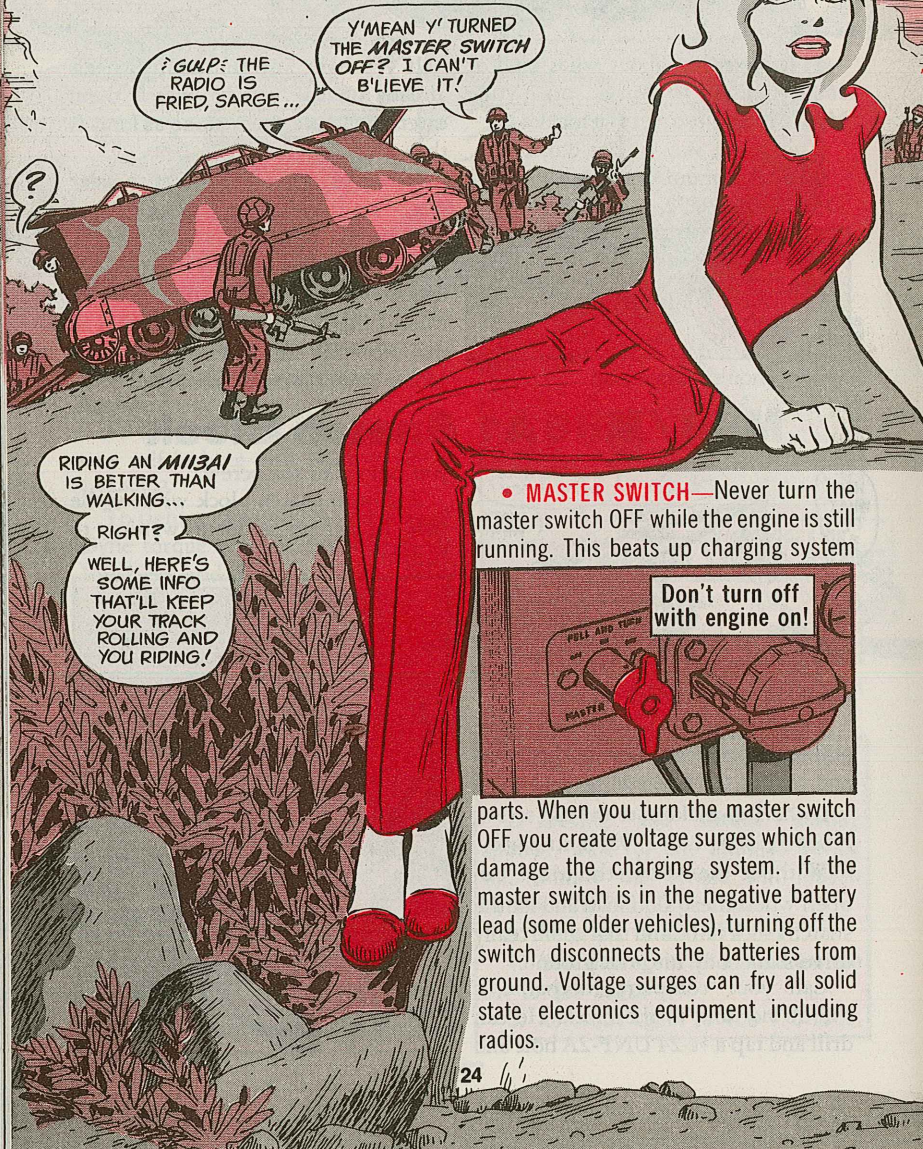




# M113A1

# Electrical System

# TIPS



GUNP: THE RADIO IS FRIED, SARGE...

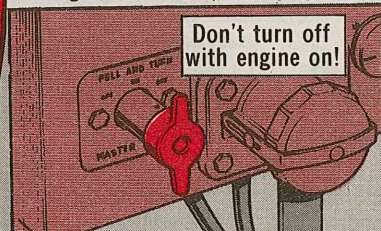
Y'MEAN Y' TURNED THE MASTER SWITCH OFF? I CAN'T B' LIEVE IT!

RIDING AN M113A1 IS BETTER THAN WALKING...

RIGHT?

WELL, HERE'S SOME INFO THAT'LL KEEP YOUR TRACK ROLLING AND YOU RIDING!

• **MASTER SWITCH**—Never turn the master switch OFF while the engine is still running. This beats up charging system

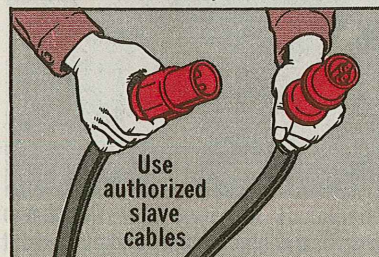


parts. When you turn the master switch OFF you create voltage surges which can damage the charging system. If the master switch is in the negative battery lead (some older vehicles), turning off the switch disconnects the batteries from ground. Voltage surges can fry all solid state electronics equipment including radios.

MANY M113A1 FAILURES ARE IN THE ELECTRICAL SYSTEM!

YOU SHOULD BE REAL CAREFUL OF THESE THINGS...

• **SLAVE CABLES**—Use only the slave cables authorized for your vehicle. Never

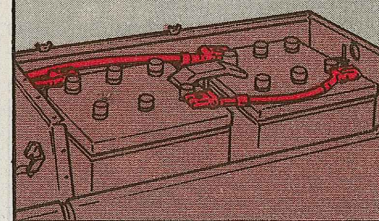


make or use split-end cables because they can easily be reversed. Reversed cables cause reversed polarity. Current flowing the wrong way can mess up the regulator, rectifier or alternator, and cause the battery to explode. In addition, the operator can get a bad electrical shock when he tries to connect reversed cables by hand.

• **BATTERIES BACKWARD**—

Batteries installed backward can also cause reversed polarity. Make sure batteries are checked with a voltmeter before installing. Getting the positive (+) and negative (-) posts of the batteries in the proper position will do no good if the polarity has been reversed during the charging of the battery. To check this out, always find the polarity of a battery with a voltmeter before installing it in the vehicle.

Batteries installed right?

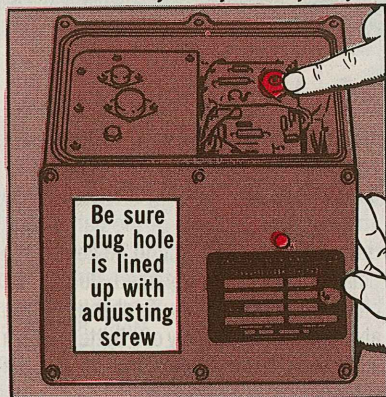


• **BATTERY CABLES**—Loose or corroded battery cable connections can cut the batteries out of the charging circuit. If your cables are loose or corroded, you have to either clean, tighten or replace 'em.



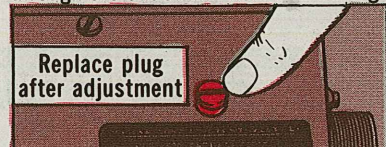
A LOT OF PERFECTLY GOOD ALTERNATORS, REGULATORS AND RECTIFIERS ARE REPLACED BECAUSE CREWMEN AND MECHANICS GET CARELESS!

• **REGULATOR PROBLEM**— If the cover is put on backwards on your 100-amp regulator the adjusting screw plug hole is not alined with the adjusting screw. Before you try to adjust your



regulator first shine a light through the hole. If you can't see the adjusting screw, call your mechanic.

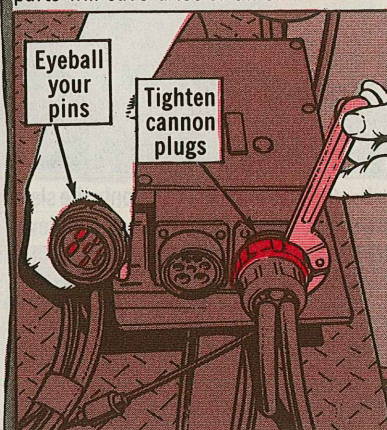
Regulators get shorted out by people who carelessly push a screwdriver through the out-of-line hole and damage



parts or short out the regulator.

Make sure the adjusting plug is in place after making an adjustment. Water can get into the regulator and short it out. This can also happen if the regulator cover screws are loose or missing.

• **CANNON PLUGS AND CONNECTORS**—Some troops just slip cannon plugs on but don't tighten them, so they get damaged. Check electrical plugs for signs of burning, arcing, bent or pushed-in-pins, broken connectors or damaged threads. Replacing or repairing damaged parts will save a lot of time.



• **ELECTRICAL CABLES**—The pins in electrical cables get bent and pushed out of position so you get either no circuit or a

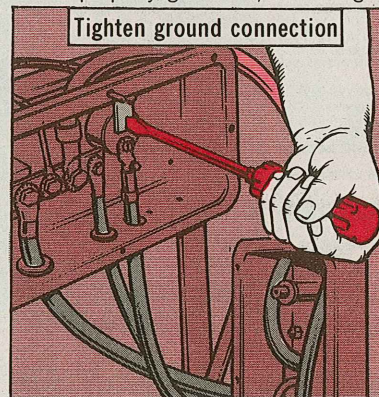


short circuit. Bare wires touching each other or touching ground can also be a problem.

## More

## Problems

• **DISTRIBUTION BOX**—When the ground connection in the distribution box is not properly grounded, the charging



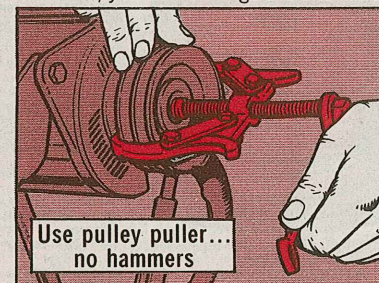
system won't work. Your mechanic can generally fix this by making sure the ground is properly secured or cleaned.

• **TROUBLESHOOTING**—When you have dead or very weak batteries you'll get false results when you troubleshoot the electrical system. Your first step in troubleshooting should be to check the batteries in your vehicle. Go on only when you have good batteries.

When you troubleshoot an electrical system, try to figure out what system the malfunction is in and what circuit within that system. You then try to find the individual component within the circuit that is causing the problem.

HERE ARE SOME OF THE WAYS...

• **PULLEY PULLER**—If you try to remove the alternator pulley by hitting the shaft, you can damage the alternator,



the pulley or both. Always use the puller for this job.

• **WOODRUFF KEYS**—Putting the pulley on the alternator without securing it with the proper size woodruff key can



cause trouble. The key must fit exactly into the groove in the alternator shaft, being neither too big nor too small.

TAKE CARE OF THESE PROBLEM AREAS IN YOUR M113A1-SERIES CARRIER AND YOU'LL KEEP ON RIDING!

PS END





This is a selected list of recent pubs of interest to organizational maintenance personnel. This list is compiled from recent AG Distribution Centers Bulletins. For complete details see DA Pam 310-4, TM's, TB's, etc.; DA Pam 310-6, SC's and SM's and DA Pam (C) 310-9, COMSEC pubs.

#### TECHNICAL MANUALS

TM 5-4310-354-14 Apr Compressor, DED, 125-CFM, 100 PSIG  
 TM 9-1425-425-L Jan Redeye pubs  
 TM 9-1425-472-12 Jan TOW  
 TM 9-1425-525-12-1 Feb Improved HAWK  
 TM 9-1425-585-L-1 Feb Chaparral  
 TM 9-1425-580-L Jan FAAR pubs  
 TM 9-2350-253-10-HR Nov Tank M60A3  
 TM 9-2350-253-20P-1 Mar Tank M60A3 C-1, TM 9-2350-257-10 Mar Tank, M60A1 (RISE)  
 C-2, TM 9-2350-257-10 Mar Tank, M60A1 (RISE)  
 TM 9-2350-300-20P Mar M163A1 ADA  
 TM 9-4931-362-14&P Dec AN/VVG-2 laser rangefinder  
 TM 9-6920-472-12 Jan TOW M70  
 TM 11-5815-283-20P Jan AN/FGC-70, -70X teletypewriter sets  
 TM 11-5820-461-20P Feb AN/GRC-50 (V) 1-5, 50A (V) 1-11 radio sets  
 TM 11-5855-238-20 Feb AN/PVS-5, -5A night vision goggles  
 TM 11-5855-249-10 Feb AN/VVS-2 (V) 1, -2 (V) 2 and night vision viewers  
 TM 11-5855-249-20 Feb AN/VVS-2 (V) 1, -2 (V) 2 night vision viewers  
 TM 11-5965-283-20P Apr H-182 headset-microphone  
 TM 11-5985-284-24P Feb AT-784 Loop antenna  
 TM 11-5985-342-14 Apr AB-864A/G mast  
 TM 11-6625-2658-14 May AN/USM-281C oscilloscope  
 TM 11-6660-206-20P Jan AN/GMD-1A, -1B Rawlin set  
 TM 55-1520-221-CL Mar AH-1G/TH-1G  
 TM 55-1520-236-10 Jan AH-1S (prod), AH-1S (ECAS), AH1S (modernized Cobra)  
 TM 55-1520-236-23P-2 Mar AH-1S (prod) (ECAS) (MC)

C 5, TM 55-1520-237-23-5 Apr Airframe, landing gear maint UH-60A  
 TM 55-1520-237-23P-2 Apr UH-60A  
 TM 55-1520-239-10 Jan AH-1S (modernized Cobra)  
 TM 55-1520-239-23P Jan AH-1S (MC)  
 TM 746-239 Feb Preserve, pack Dragon  
**MISCELLANEOUS**  
 DA Form 12-9A Oct Pin-point for admin pubs (AR's, Cir's, Pam's)  
 DA Form 2410-1 1 Jan 80 Component removal/installation/movement  
 DA Form 3286 1 Jan 80 Missile eqpt status report  
 FM 10-76Y3 Jan Unit supply spec  
 FM 10-76Y4 Jan Unit supply spec  
 FM 10-76Y/CM Jan Unit supply spec  
 SB 9-16 Mar Personnel heater, winteriz kit policy for tank-auto, construct, MHE  
 SB 11-642 Mar AN/APN-209 (V) electronic altimeter  
 SB 740-94-6 Mar Storage: filter units, gas particulate  
 SB 740-94-13 Jan Storage: for flamethrowers, flame rocket launchers  
 SB 740-95-100 Feb Storage: towed howitzers  
 SC 3990-97-CL-E04 Dec Cargo set, heavy lift  
 SC 3990-97-CL-E04-HR Dec Cargo set, heavy lift  
 SC 4910-95-CL-A74 Sep No. 1 common shop set  
 SC 5180-90-CL-N36 Nov Tool kit, gen mech, TMP  
 SC 5180-90-CL-N36-HR Nov Tool kit, gen mech, TMP  
 SC 5180-90-CL-N57 Feb Tool kit, gen mech It wt  
 SC 5180-90-CL-N57-HR Feb Tool kit, gen mech It wt  
 TB 750-25-1 Oct Army test, measure, diagnostic eqpt (TMDE) calibration and repair

## New TOW, Dragon TM's

A dozen new TOW and Dragon missile system TM's are out or on the way. Some supersede the older manuals, which were rescinded by DA circulars.

You need the following manuals with the new TM-series number:

TOW Systems		Dragon System	
New TM	Superseded TM's	New TM	Superseded TM's
9-1425-472-12	9-1425-470-12	9-1425-484-10	9-1425-480-10
9-6920-472-12	9-6920-470-12	9-6920-484-12	9-6920-480-12-1 and -12-2
9-4935-472-14-1		9-4935-484-14	9-4935-480-14
9-4935-472-14-2	(No	9-1425-484-24	9-1425-480-24 and 9-6920-480-34
9-1425-472-34-1	Supersessions)		
9-1425-472-34-2			
9-6920-472-34			

Any systems TM's not listed as superseded are still good.



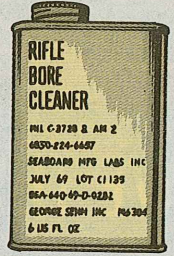
On Time  
 Where does "Future" begin and "Present" end?  
 Could it be that they overlap and blend?

—Anon

FORT GEORGE, 2030 HRS, 3 JULY 80,  
 AS 2 RIFLEMEN ENJOY TIME OFF...









# Joe's Dope Sheet

When you're READY, the Battle's Half Won;  
So take care of your Rifle an' Gun!  
With Liberty's Might  
You're able to Fight--  
Keep Foes who would oppress on the Run!

BWEEEE

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.

Joe



LOOK WHAT CARELESS PM HAS DONE FOR US...

## CARBON BUILD-UP

CARBON CLEANING'S A MUST WHEN YOU FIRE BLANKS! THAT'S A DAILY MUST,

Using blanks?



Clean carbon daily!

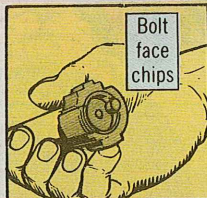
NATURALLY YOU CLEAN OUT CARBON AFTER FIRING ANY AMMO!

CLEANING AND CARBON WOES CLOBBER PARTS LIKE THE M60 MACHINE GUN BOLT AND OPERATING ROD.



THE GUN'S RECEIVER PARTS ARE ALSO WORN AND DAMAGED UNNECESSARILY.

CRUD AND CARBON ON THE M16A1 RIFLE CHIPS THE BOLT FACE AND CLOGS THE GAS TUBE AND CARRIER KEY!



Bolt face chips



Keep carrier key clean

SAFETIES ON BOTH WEAPONS CAN JAM IF YOU DON'T CLEAN THEM RIGHT!

--MISSION ACCOMPLISHED! YOU'RE GOOD AS NEW, M16A2, OLD FRIEND!

THANKS, I FEEL GREAT!

42? THERE'S NO SUCH WEAPON!

NOT NOW ... BUT IN 1990...!

RIGHT! MY FRIEND, HERE, WAS DESPERATE ON THIS DATE 10 YEARS FROM NOW... I BROUGHT HIM HERE FOR HELP!

JUST IN TIME, TOO... BUT I SEE FROM THIS SCENE, MY PROBLEM IS NOT A NEW ONE!

TELL YOUR STORY, GOOD FRIEND!

HAPPY TO, UNCLE...

MY PROBLEM WAS UNAUTHORIZED

## DISASSEMBLY

MY RIFLEMAN WAS BORED ONE DAY SO...

DUNNO... LET'S TAKE 'EM APART!

WONDER WHAT MAKES OUR RIFLES TICK?

Take it down to what your TM says...and stop!

HOW SHOULD I KNOW...

WE BETTER PUT 'EM BACK TOGETHER!

ARE WE AUTHORIZED TO REMOVE THESE PARTS?

YEH! I HAD TO FORCE THIS PART TO MAKE IT FIT!

KNOW WHAT YA MEAN... I GOT A PART LEFT OVER!

THEN IT HIT THE FAN...

ENEMY ATTACK!

MY RIFLE WON'T FIRE!

OH, NO!... MINE, EITHER...

...ENEMY FIRE ZEROED IN AND ONLY MY OPERATOR SURVIVED...

MY BUDDIES... ALL DEAD!

QUICK! GIVE ME THAT PIECE, SON!

H-HUH?

SO, UNCLE SAM BROUGHT ME TO THIS PLACE AND TIME... I'M HERE AND WELL --AGAIN!

RIGHT! HISTORY DEPENDS ON YOU... BACK TO 1990 YOU MUST GO!!

BUT FIRST...

YOU RIFLEMEN MUST DO ONLY WHAT YOUR TM SAYS YOU CAN ... IF YOU GET IN A BIND, SEE YOUR ARMORER!

DON'T STORE WEAPONS WITH MISSING OR DAMAGED PARTS... THAT COULD BE FATAL TO YOU... OR YOUR WALLET!"



## 

MANY WEAPONS ARE DAMAGED DURING TRANSPORT...

SECURE YOUR WEAPON... OR HOLD IT, IF YOU CAN'T!



## 

TMS ARE SPECIFIC ON MAINTENANCE BUT TOO MANY SOLDIERS DON'T READ THEM!

THAT'S THE BASIC PROBLEM! OPERATOR MAINTENANCE MUST BE PERFORMED BY THE BOOK TO KEEP US WORKING!



TOO LITTLE LUBE... HIT-OR-MISS CLEANING-- A SMALL, IGNORED CARBON BUILD-UP... THESE ARE THE KIND OF "SMALL" THINGS WHICH PUT SMALL ARMS DOWN!

THEY CAN ADD UP TO BIG REPAIRS!

YOUR TIME MAY BE SHORT FOR PREVENTIVE MAINTENANCE... BUT IF YOU DON'T DO IT, WHO WILL?



GOODBYE, GENTLEMEN! MISAZ AND I HAVE A DATE WITH DESTINY...

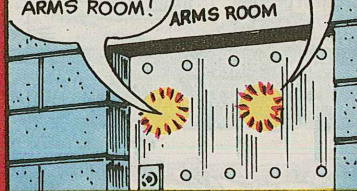
Gulp!

THEY'RE GONE!

HEY-- HE LEFT US IN THIS LOCKED ARMS ROOM!

HOW ARE WE GONNA GET OUT?

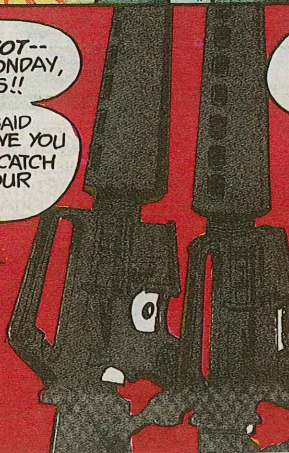
PooF!



YOU'RE *NOT*-- UNTIL MONDAY, THAT IS!!

UNCLE SAID THAT'LL GIVE YOU TIME TO CATCH UP ON OUR PM...

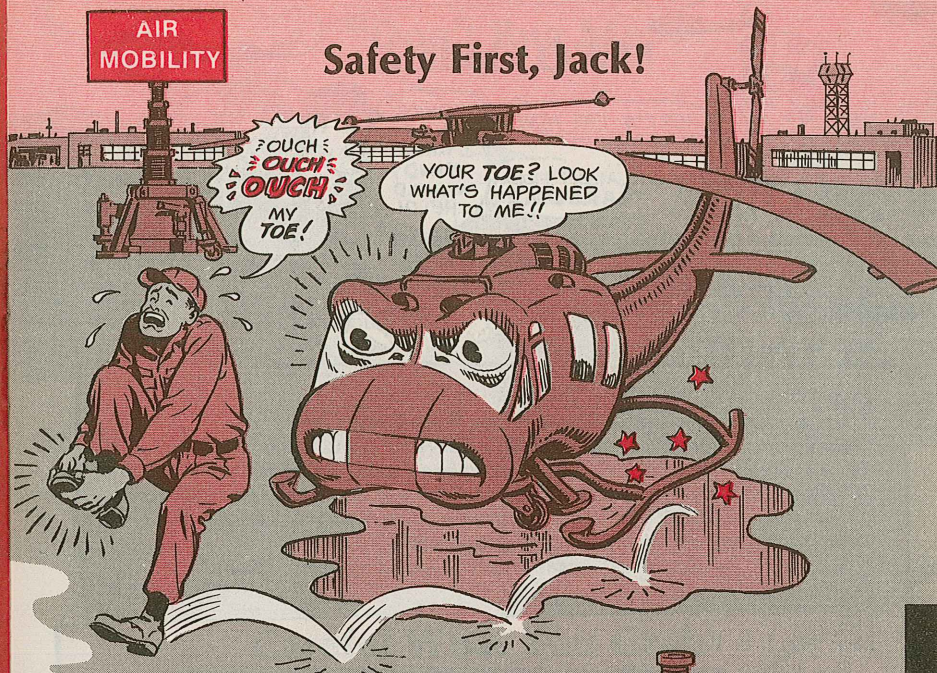
--AND TIME TO FIGURE OUT AN EXPLANATION FOR SARGE AS TO HOW YOU CAME TO BE LOCKED UP IN THE ARMS ROOM OVER THE HOLIDAY!



36

## 

## 

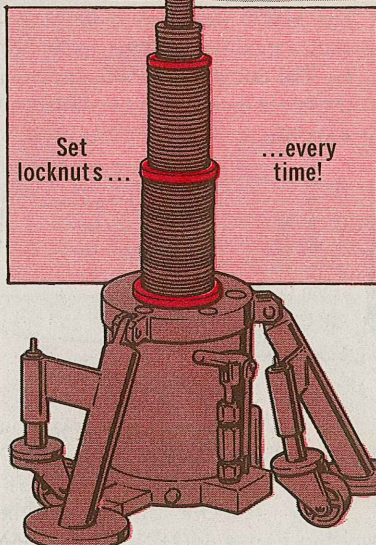


The next time you knucklebusters place a tripod jack under one of your birds, set the plunger locknuts—for real!

If the locknut is missing or set too high, the jack will collapse when the smaller plunger drops inside the larger one as you open the pressure release valve.

You get an unexpected loss of lift and hydraulic fluid squirting out of the top of the jack. The result can be a damaged bird and maybe a personal injury to boot.

No matter what jack you're using, set those locknuts every time. That's the word in Para 8-100 of TM 55-1500-204-25/1 (Apr 70) on your tripod jacks.



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## MWO Update

HERE'S THE MWO  
INFO YOU NEED,  
CHIEF!...  
STRAIGHT FROM  
TSARCOM!!

THANKS,  
UNCLE!  
I KNEW  
WINDY  
WOULD  
HELP!

Dear Windy,

The application of some Modification Work Orders leaves us up in the air. For example, the DA Form 2408-5 on our Huey shows MWO 55-1520-210-30/44, with Change 2 (Sep 76), has not been complied with. DA Pam 310-7 no longer lists the modification for installation of an interim IR suppressor. I believe the MWO has been canceled or doesn't apply and the DA Form 2408-5 should be updated to reflect that info.

But where do we get the backup for the log book entry, Windy?

CW2 J. B. F.

Dear Mr. J. B. F.,

You have a good point.

The MWO you cited is still active. But because of the location of some aircraft, a modification may not be 100 percent applicable to a particular model.

To find out if the MWO applies to your Huey, contact your TSARCOM aircraft field maintenance technician. He can ask the head hangar if the MWO on a specific serial-numbered aircraft applies.

US Army Troop Support and Aviation  
Materiel Readiness Command  
ATTN: DRSTS-MEM  
4300 Goodfellow Blvd  
St. Louis, MO 63120

YOU CAN  
ALSO WRITE  
FOR THE  
INFO...

If a MWO doesn't apply to your unit, draw a line thru the entry and write "Not applicable" in block "f" of the DA Form 2408-5. You'll find that poop in Para 4-8d(5) of TM 38-750 (May 78).

When a MWO is canceled, cite the pub listing the cancellation. That's the word in Para 4-8d(2) (b) of the TAMMS pub.

"Don't Bug Me!"

HEY,  
LOOK, FELLAS...

HE DOESN'T  
HAVE TH' NEW  
SCREEN!

GREAT!

If bugs are plugging up the static line in your OH-6A, your favorite throttle jockey won't get accurate instrument readings.

So screen out those pests with Vent Plug, NSN 5340-01-080-5503. It's a new part.

Use Adhesive, MIL-A-46050, to secure the plug screen in the open tube at the back of the dog house. NSN 8040-00-142-9193 will get you a 12-oz tube.

Add  
screen  
here

## Careful What You Grab

NO! NO!  
NOT THAT  
HOSE!

HERE'S  
TH' HAND-  
HOLD!

?

Damaged couplings lead to fuel leaks and red X'ed birds for replacement of parts.

The UH-1 fuel filter quick-release coupling at the fuel filter is taking a beating—for real!

That's because some mechs are using it as a handhold.

It's tempting to reach for the fuel line when you head for the engine deck. But it's just as easy to look first—locate the built-in handhold—and use it.

Yes

No



Change 'em!

Paper element

Metal element (inside)

Replace 'em!

Dear Windy,  
 Paras 7-50 and 7-51 in TM 55-1520-210-23 (Feb 79) say to clean the metal hydraulic filter element on our Huey every 1000 hours and replace the paper type every Phase Maintenance inspection.  
 But Item 11, page 2-29 of TM 55-1520-210-PM (Jul 78) says to replace both the metal and paper elements every 4th and 8th Phase.  
 What do you recommend, Windy?  
 SGT J.L.K.

Dear Sergeant J.L.K.,  
 Stick with the Phase Maintenance pub.  
 One of the problems of cleaning the metal elements is that units do not have the expensive cleaning equipment to do the job properly.  
 Both filter elements look so much alike it's hard to decide which type you have.  
 It's less costly to simply replace both elements every 4th and 8th Phase on your UH-1 D/H Models...400 hours.  
 Change the elements every 3rd Phase on the UH-1 C/M Models and the AH-1 Models...450 hours. TM 55-1520-210-23 is being updated.

Windy

HEY... YOUR COATING WON'T COME OFF!

Super Korpon OK!



'COURSE NOT! IT'S SUPER KORPON!

When you Huey mechs install the elevator on your bird, you have to remove any zinc chromate primer that may have been applied to the horn or spar.

That's the word in Para 2-293 of TM 55-1520-210-23 (Feb 79).

If that yellow-green coating inside the bore resists removal with your application of methyl-ethyl-ketone on a rag, tho, cease and desist!

The coating is not zinc chromate—it's Super Korpon Epoxy Primer, now being used by the manufacturer.

Both products look the same, so how do you tell the difference? Easy! Methyl-ethyl-ketone will quickly cut into zinc chromate.

Not so with Super Korpon...it's a tough finish that will help prevent seizure of the spar in the horn.



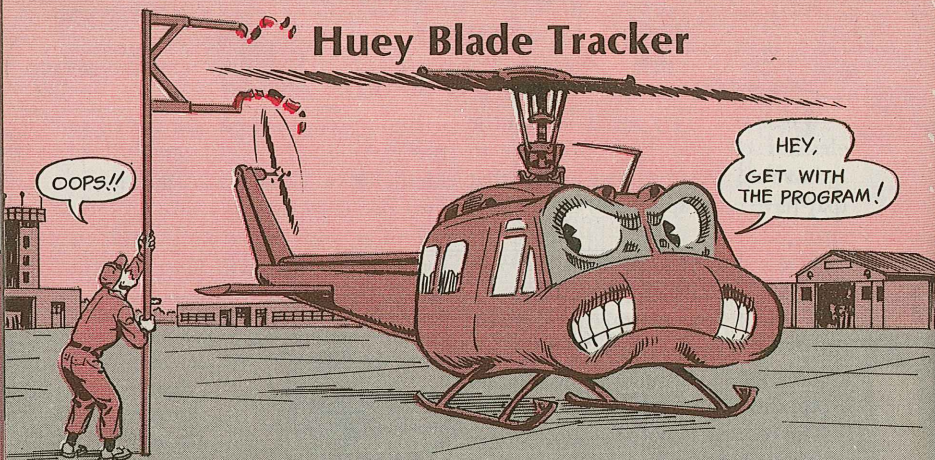
## Safety-of-Flight Messages

**AH-1-80-04** One-time inspect, attaching hardware, lever assy, P/N 41000257 and others DRSTS-MEA 192015Z Mar 80  
**AH-1-80-05** P1 bellows check, UH-1H/M, EH-1H, AH-1G, TH-1G DRSTS-MEA 281610Z Mar 80  
**AH-1-80-06** Maint advis—hvy-duty skid shoes DRSTS-MEA 311610Z Mar 80  
**AH-1-80-07** Op advis—lift flight restrict DRSTS-MEA 311605Z Mar 80  
**UH-1-80-02** One-time inspect, attaching hardware, lever assy DRSTS-MEA 192015Z Mar 80  
**UH-1-80-03** Maint advis—hvy duty skid shoes DRSTS-MEA 311610Z Mar 80  
**UH-1-80-04** P1 bellows check, DRSTS-MEA 281610Z Mar 80  
**OH-58-80-04** Maint advis—fuel pump and fuel control fil ele DRSTS-MEA 241605Z Mar 80  
**OH-58-80-05** Op advis—TOT limit for starting DRSTS-MEA 281610Z Mar 80  
**CH-47-80-02** Maint advis—T55L-11 series eng output shaft end float inspect DRSTS-MEA 132015Z Mar 80  
**CH-47-80-03** Grounding CH-47A, B &

C DRSTS-MEA 072300Z Mar 80  
**CH-47-80-04** One-time inspect—combining transmissions TB 55-1520-241-20-7 DRSTS-MEA 142300Z Mar 80  
**U-21-80-02** Interchangeable eng mount U-21/RU-21, JU-21 DRSTS-MEA 031925Z Mar 80  
**U-21-80-03** Replace attach screws retain inspect door (50-410012-431) DRSTS-MEA 111810Z Mar 80  
**GEN-80-04** Maint advis—care of Vibrex blade balancing, tracking eqpt DRSTS-MEA 132025Z Mar 80  
**UH-60A-80-07** Maint advis—inspect tire, tubeless, P/N 70250-12049-101 DRDAV-EEB 050130Z Mar 80  
**UH-60A-80-08** Maint advis—L/H relay panel P/N 70550-02105-043 DRDAV-EEB 111459Z Mar 80  
**UH-60A-80-09** Icing cond DRDAV-EEB 051730Z Mar 80  
**UH-60A-80-10** Life limited spindle assys DRDAV-EEB 042205Z Mar 80  
**UH-60A-80-11** Special inspect main rotor spindle inner race and bonded liners DRDAV-EEB 0821830Z Mar 80

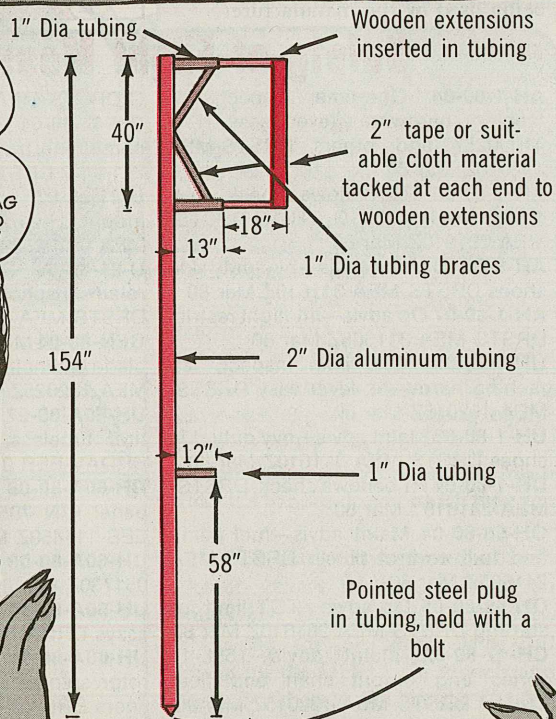


## Huey Blade Tracker



IF YOU NEED A TRACKING FLAG FOR YOUR UH-1-- YOU CAN'T GET ONE FROM TECH SUPPLY!

USE THIS SKETCH TO MAKE A FLAG THAT'LL DO THE JOB!



YES, SERGEANT-- SOMEONE SENT FOR ME!

FALSE ALARM, EH?

## Easy Does It!

SORRY, BROTHER...

SOME CHARACTER DOESN'T REALIZE YOU CAN'T "MONKEY" AROUND WITH A SCRIBE ON OIL SIGHT GAGE GLASS!

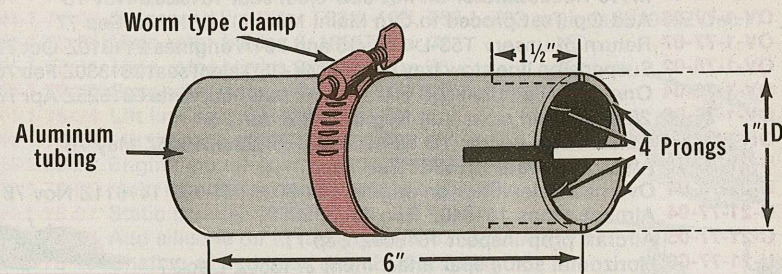
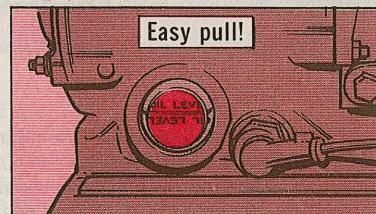
?GULP?

Dear Editor,

I've seen a lot of different tools used to remove oil sight gage glasses on Bell choppers--some good and some bad!

Using a scribe during your cleaning chore, for example, can scratch the plastic.

But here's a tool that works real fine.



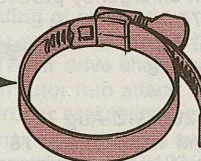
Make the tool from aluminum tubing. Just latch onto a hack saw and cut 2 slots (4 prongs) to the depth indicated. Add a suitable worm type clamp over the tube.

the tool over the glass and tighten down on the tool prongs.

A light pull removes the glass, easy as you please!

Jesse Witters  
Grand Canyon Helicopters, AZ

Use worm type clamp



To use this little dude, remove the lock ring from the sight glass. Insert

(Ed Note--This is a handy tool that can be used in Bell military and commercial helicopters.)



## Safety-of-Flight...

Now that each quarterly EIR and Maintenance Digest lists a summary of aircraft messages issued by TSAR-COM and AVRADCOM, it's a simple matter to keep your file current.

If you're missing any of the safety-of-flight or maintenance advisory messages, ask higher headquarters for another copy.

# Message File UPDATE

MEANWHILE, CLEAR YOUR FILE OF MESSAGES PRIOR TO 1979 -- WITH CERTAIN EXCEPTIONS -- BECAUSE THE OLD POOP IS NOW IN THE MANUALS!

HANG ON TO THESE OLDIES, HOWEVER, BECAUSE THEY'RE STILL CURRENT...

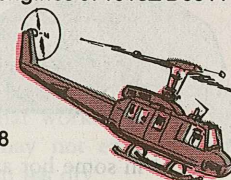
PEARLS OF WISDOM, BONNIE!

WAY TO GO!

- Gen-78-13** Test set indicator, fuel quantity gage 241630Z Aug 78
- OV-1-78-06** 53C51-27 Propellers 051405Z May 78
- OV-1-78-07** Replace MK-J5D eject seat face screen 031954Z Oct 78
- OV-1-78-08** Replace MK-J5D eject seat drogue gun 131930Z Nov 78
- OV-1-78-09** M119 Rocket motor on MK-J5D eject seat 131930Z Nov 78
- OV-1-77-06** Add Op Test proced to Org Maint Manuals 081802Z Sep 77
- OV-1-77-07** Return of unserv T53-L-13B, 15 and 701A engines 211310Z Oct 77
- OV-1-76-02** Suspension line stow tray used w MK-J5D eject seat 261330Z Feb 76
- OV-1-76-04** One-man life rafts used w OV-1 overwater surv kits 081625Z Apr 76
- OV-1-76-06** 28V DC solid state Volt Reg 071300Z Jun 76
- OH-58-78-10** Main rotor heads; TB 55-1520-228-20-23 081945Z May 78
- U-21-78-01** Aft facing seats 101526Z Feb 78
- U-21-78-04** Overhaul interv incr on engine T74-700, T74-702 141611Z Nov 78
- U-21-77-04** Aircraft props 161840Z Sep 77
- U-21-77-05** Aircraft prop inspect 161800Z Sep 77
- U-21-77-06** Horizontal stabil spar attachment 271350Z Dec 77
- U-8-78-03** Aft facing seats 172113Z Feb 78
- U-8-78-04** Aileron inspect 081454Z Mar 78
- U-8-78-07** Generator mounting nuts 031600Z Aug 78
- U-8-78-07** Amend U-8-78-07 041900Z Aug 78
- CH-54-78-04** MIL-H-83282A hyd fluid 212103Z Dec 78
- C-12-78-01** Fuselage Fire/smoke, fume elim emergency proced 152235Z Mar 78
- C-12-78-03** Fuel check valve 131530Z Dec 78
- UH-1-78-02** Heavy duty skid shoes 302125Z Jan 78
- UH-1-78-03** Infrared suppressor 032115Z Feb 78
- UH-1-78-09** Silicone oil 031520Z Aug 78
- UH-1-78-10** Ground op T53-L-13B engines 291531Z Aug 78
- UH-1-78 (No number)** Washer for roller chain 122042Z Sep 78
- UH-1-78-13** Main rotor hyd servo cyl installation 172030Z Oct 78
- UH-1-77-02** Heavy duty skid shoes 281400Z Jan 77
- UH-1-77-08** Tail rotor control assy 092100Z Mar 77



- UH-1-77-09** Amend UH-1-77-08 171954Z Mar 77
- UH-1-77-11** Special instruct on glass windshield 181350Z Apr 77
- UH-1-77-12** Tail rotor drive shaft hanger assy parts 051615Z May 77
- UH-1-77-16** Infrared suppressors 261956Z Aug 77
- UH-1-77-19** Tail rotor contr sys 201525Z Oct 77
- UH-1-77-21** Swashplate trunnion bearing 032040Z Nov 77
- UH-1-77-22** Overspeed limits for T53-L-13B, T53-L-703 engines 071918Z Dec 77
- UH-1-76-06** Main rotor blades 241655Z Mar 76
- UH-1-76-11** Main rotor blades 022040Z Jun 76
- UH-1-76-23** Suspected engine failure 182005Z Oct 76
- UH-1-76-24** Lift link assy 051450Z Nov 76
- UH-1-76-26** Lift link assy 181400Z Nov 76
- AH-1-78-02** Engine mount components 141700Z Feb 78
- AH-1-78-05** Main rotor blade assys 311825Z Mar 78
- AH-1-78-07** Static inverter 182025Z May 78
- AH-1-78-14** Add silicone oil to fuel controls 031520Z Aug 78
- AH-1-78-16** Chafing of hyd hose assy 251200Z Aug 78
- AH-1-78-17** Ground op T53-L-13B engines 291531Z Aug 78
- AH-1-78-18** Tail rotor gear box install 201741Z Nov 78
- AH-1-78-21** Environ control sys 272055Z Nov 78
- AH-1-77-02** Heavy duty skid shoes 281400Z Jan 77
- AH-1-77-07** Tail rotor assy pub chgs 171945Z Mar 77
- AH-1-77-05** M158A1 launcher 091625Z Feb 77
- AH-1-77-08** Chafing of elevator contr rigid connect link 172151Z Mar 77
- AH-1-77-10** Door warp problems 142115Z Apr 77
- AH-1-77-12** Tail rotor drive shaft hanger assy parts 051651Z May 77
- AH-1-77-13** Main rotor hub attach bolts 132030Z May 77
- AH-1-77-14** Improper grease in 42-degree gear box couplings 161800Z May 77
- AH-1-77-15** Transmission mount support 081720Z Jul 77
- AH-1-77-20** Inspect hyd lines 212210Z Sep 77
- AH-1-77-24** Return of unserviceable engines 211310Z Oct 77
- AH-1-77-26** Overspeed limits for T53-L-13B, T53-L-703 engines 071918Z Dec 77





## COMMO SHELTERS

## VS. HUMIDITY

Like the endless battle of cat stalking mouse, corrosion stalks communications vans and shelters.

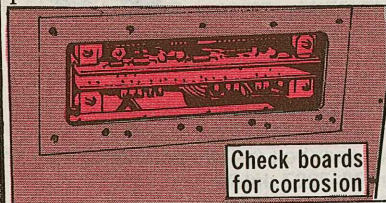
When it's hot, humid or wet—or when salt air adds spice—the “cat” wins, every time. Relentless corrosion cut the damage considerably by knowing what to look for. When you find it, do something about it.

HERE  
ARE SOME  
TIPS...



SOP in some hot and humid areas calls for 24-hour a day air conditioning in commo huts with high voltage equipment, such as the AN/GLQ-3.

If the air conditioner goes down or is not available, mold forms on the plates and circuit boards.



Check 'em out. Clean 'em up. If necessary, replace them.

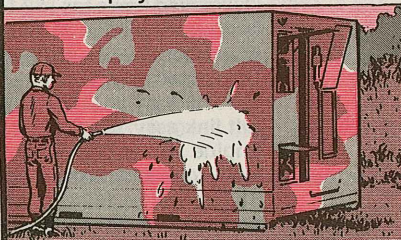
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## Air Helps Some

Leaving a hut door and vents open helps a little, but it won't prevent mold/corrosion. PM checks are a must, and the hotter and wetter it is, the more often checks must be made. The TM intervals may be too far apart.

Salt spray clobbers shelter walls. If you ignore the spray, it'll eat holes in the outside walls. So what to do?

## Wash spray off walls



Wash the walls with fresh water as often as necessary. Don't let the salt residue build up. If you do find holes, get them repaired. TB 43-0124 (Jun 79) gives you the who, how and what details for fixing.

SMALL HOLES IN  
A SHELTER CAN MAKE  
A LOT OF EXPENSIVE  
DAMAGE...

SO GET  
THEM REPAIRED  
SOONEST!

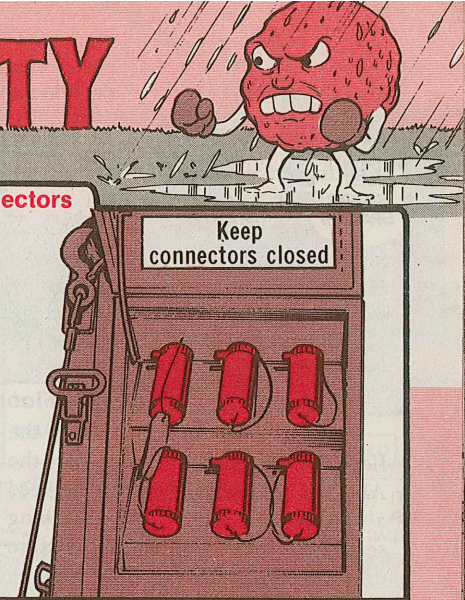


## Connectors

When humidity's high, connectors aren't much safer in shelters than they are in open vehicles. That goes for sealed connectors, too.

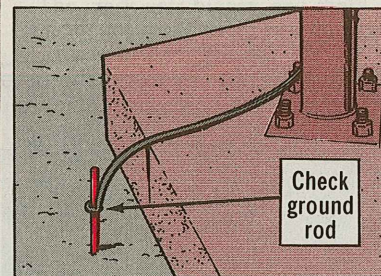
So, when your equipment's working OK, don't open sealed or inclosed connectors unnecessarily. That'll expose them to corrosion.

If you disconnect any connector in troubleshooting or routine PM checks, clean it if necessary and coat the housing with silicone grease NSN 6850-00-880-7616.



## Grounding

Ground rot hits ground rods in areas of heavy rain. If you're using a rod for a fixed installation, it can rot off in the ground. That'll create problems you don't need.



Best bet is to give the rod a conductivity test twice a year and to

pull the rod once a year to be sure it's in good shape.

If your area has a dry-wet cycle, the ground rod that worked well in the wet season may not even be near moisture when it's dry.

Give it a conductivity test before you operate the equipment. You may have to drive it a lot deeper to hit moisture...or you may have to keep the ground wet around it.

In some areas, not even a 4 by 4-ft sheet of metal buried deep will give you the ground you need.

Check your ground out, wet or dry. FM 11-487-4 and TC 11-6 tell you all about grounding.

HEY, GANG --  
IT'S MACON!

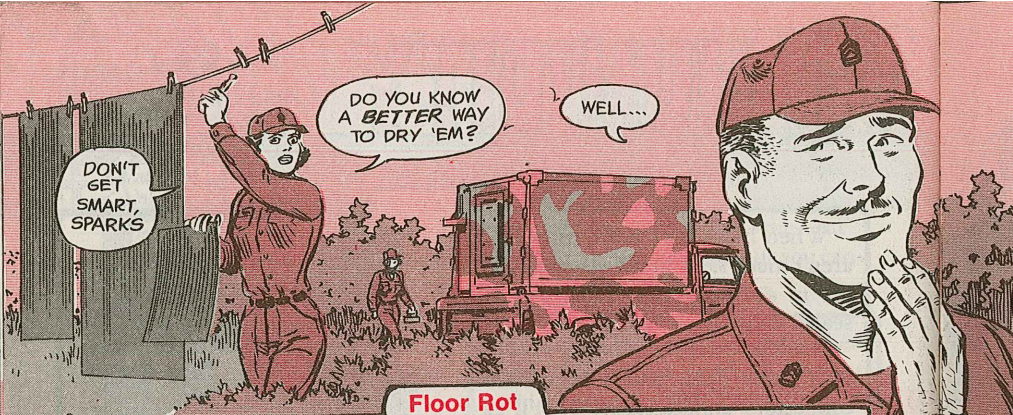
SARGE -- GIVE  
ME A HAND -- I'M  
GETTING SPARKS  
HERE!



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PS MORE





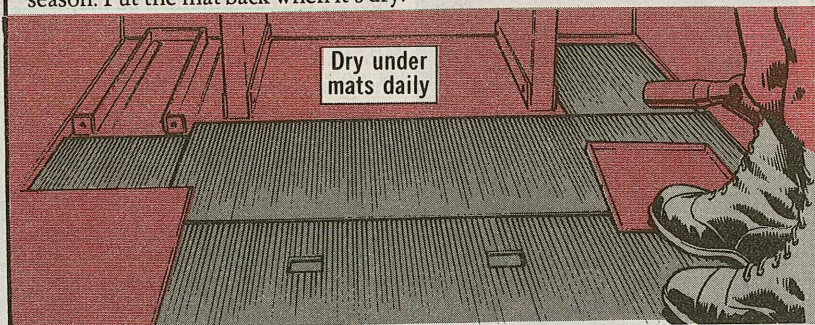
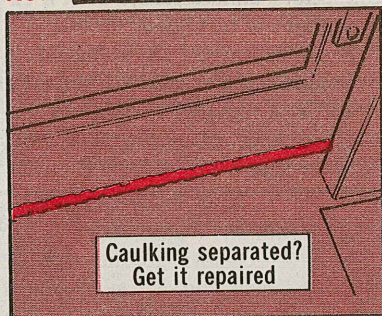
### Floor Rot

Shelters with caulking along the floor at the wall, such as for the AN/TSC-58 telegraph terminal, need a frequent check. The caulking separates from the wall, moisture drips down through the floor, and the floor rots.

Whether the rain's falling or the humidity's up, check the caulking as often as the weather demands. If it's separated, get it recaulked.

Another floor killer is the rubber mat in a lot of shelters or vans. Moisture condenses under the mats, and mold, mildew and rot go to work on the floor.

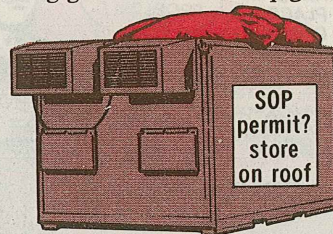
The simplest solution is to roll them up and store them for the wet season. Put the mat back when it's dry.



Another way is to roll the mats up once a day and mop the floor and the underside of the mat dry. Otherwise, air the mat till it's dry.

### Storing Gear

If local SOP permits, store shelter gear on the roof in the wet season. That saves damage such as you get by storing gear on wet or damp ground.



### AN/TRC-145

The AN/TRC-145, another dry shelter candidate (air vents open, dry rubber mats, etc.) has a different kind of high humidity problem. Humidity causes it to arc between the PA tube and the chassis.

Your commo repairman can help by putting a rubber gasket between the PA tube and the chassis.

Otherwise, when the corrosion "cat" pounces, beat it back with PM before it makes a meal of your equipment.



### Cracking Under Pressure

OH, NO!  
IT'S BRUTO  
BASHEM!



HE'S ONE  
JOKER WHO  
REALLY CRACKS  
ME UP!

HO-HO!! IT'S  
ANTENNA PM  
TIME!

The tension unit on your OH-6A Cayuse's ADF sense antenna cracks under pressure.

It starts when strong-arm types overtighten the cap. That forces the cap's rim over a raised ridge on the insulator body.

The crack gets bigger, and there goes your ADF system.



Finger tight is enough for the cap. To be sure it won't work loose, put a drop of glue on the threads. NSN 8040-00-142-9193 brings you an ounce of adhesive.

Be sure to wipe away extra glue once the 2 parts are together.





NUTZ!

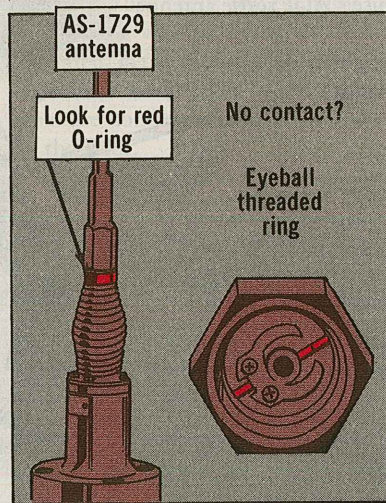
## Keep In Touch

THE CONTACTS ARE CLEAN... THE SCREWS ARE IN PLACE... BUT IT DOESN'T WORK, SPARKS!

I SEE RED, TOO... AND THAT'S YOUR PROBLEM!

You gotta have good contacts to do your communicatin' job. Those inside the AS-1730 antenna element of your AS-1729 antenna, for instance.

If your contact's broken, order a new one with NSN 5985-00-921-0630. If the screws are gone, ask for NSN 5305-00-054-5635.



Repeated installations can take a toll on the fragile horseshoe contact. Screws disappear, too.



If your horseshoe is present and accounted for, maybe the spring contact's not in touch. A good tipoff is seeing red between the element and the MX-6707 matching unit. The red is your O-ring.

If it's showing, it means the 1730's threaded ring has turned and is keeping the element's contact from hitting the button on top of your matching unit.

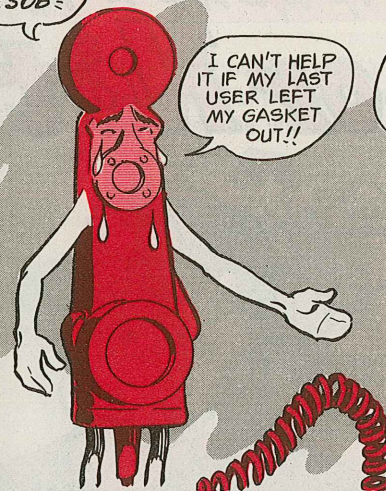
Just tighten the ring, tho, and you should be back in business.

## Your TA-1/PT Needs A Stiff Lower Lip

SOB SOB

I CAN'T HELP IT IF MY LAST USER LEFT MY GASKET OUT!!

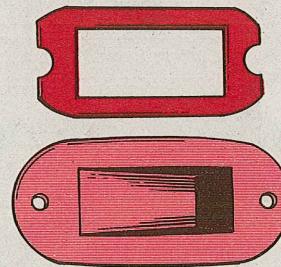
TOO BAD, BUDDY! TO BE MY TYPE, Y'GOTTA KEEP A STIFF LOWER LIP!



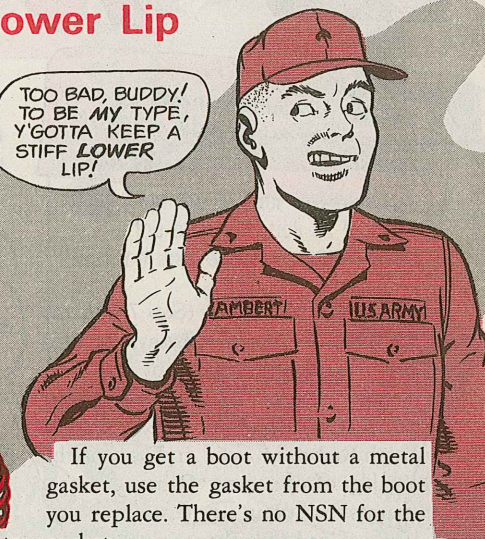
Those generator and P-T-T boots on your TA-1/PT telephone set need to be stiff to keep out moisture.

The stiffness is provided by a gasket which comes with each boot and it's up to you to insert it **before** you install the boot on the handset and screw on the retainer.

Gasket

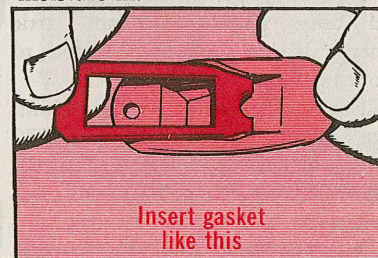


Generator boot



If you get a boot without a metal gasket, use the gasket from the boot you replace. There's no NSN for the gasket.

The metal gasket needs a little coaxing to get it in the lip of each boot, but it goes in...and it's necessary. Some troops throw away the gasket because they don't know what it's for. Some think the boots alone make a good seal. They don't, because the rubber bunches up during use and lets moisture in.



Insert gasket like this

So now everybody knows the "why" of it. So keep a stiff lower lip.





Corrugated  
Cans...

# To Paint or Not

Dear Half-Mast,  
Do we camouflage paint the cor-  
rugated cans used with immersion  
heaters?

MSG A.R.

Dear Sergeant A.R.,  
You do.

Chap 7, FM 10-23 (Sep 78) Army  
Food Service Operations says the cans  
get the cover-up treatment.

Use only these non-toxic  
camouflage enamels: Earth Brown,  
Earth Red and Black...and only on the  
outside of the cans. Other enamels  
(paints) contain potentially high  
levels of lead and other toxic chemicals  
which could contaminate the water.

Here're the numbers:

NSN 8010-00-	Color	Container size, gallons
111-8003	Earth Red	1
111-7998	Earth Brown	1
111-8005	Black	1

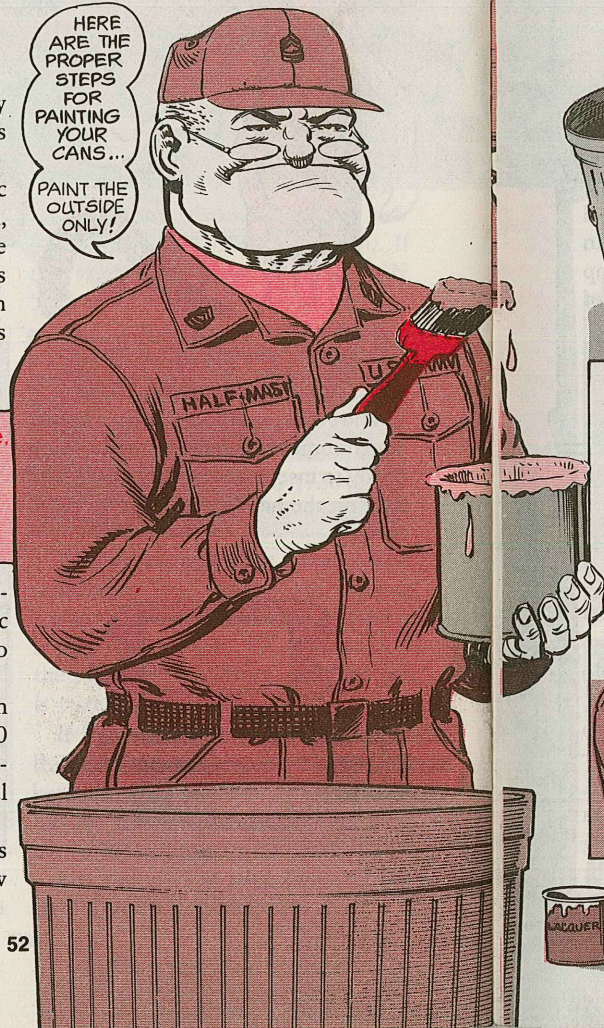
Never use a primer on the galvaniz-  
ed cans. Primers contain toxic  
chemicals that could be hazardous to  
your health.

Use xylene or mineral spirits to thin  
the enamels. NSN 6810-00-584-4070  
gets 5 gallons of xylene; NSN 8010-  
00-558-7026 gets 5 gallons of mineral  
spirits.

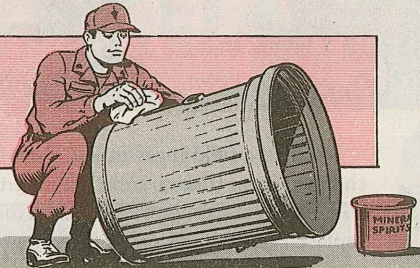
Para 3-8, TB 43-0147 (Dec 75) has  
the poop on which, when and how  
much thinner to use.

HERE  
ARE THE  
PROPER  
STEPS  
FOR  
PAINTING  
YOUR  
CANS...

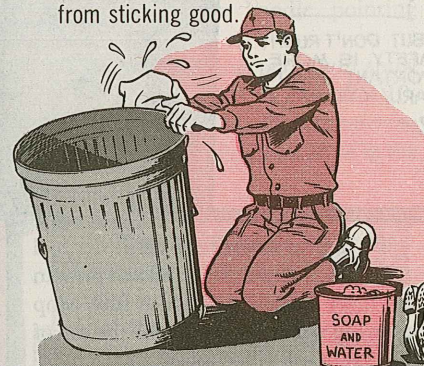
PAINT THE  
OUTSIDE  
ONLY!



**1** Wash the outside of the can  
with a solvent—f'rinstance, mineral  
spirits—to get rid of grease and oils.



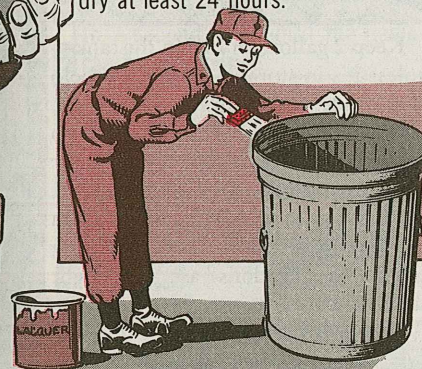
**2** Wash the can with soap 'n'  
water to get rid of any solvent film  
that would keep the undercoating  
from sticking good.



**4** Sand the lacquer real good ...  
so the top coat will stick on better.  
Wash off any residue ... sand, dust,  
etc.



**3** Coat the outside of the can  
with clear epoxy-polymide lacquer.  
NSN 8010-00-896-1980 gets a kit  
that contains a gallon of pigmented  
compound and a gallon of converter.  
Mix these 2 non-toxic chemicals like  
the instructions say. Let the coating  
dry at least 24 hours.



**5** Paint the can with Earth  
Brown, Earth Red, or Black enamels  
... and only in a well-ventilated area.  
Outdoors is best.



You can temporarily camouflage  
the can with mud, or canvas draped so  
that it does not touch the immersion  
heater.



# New PM Menu

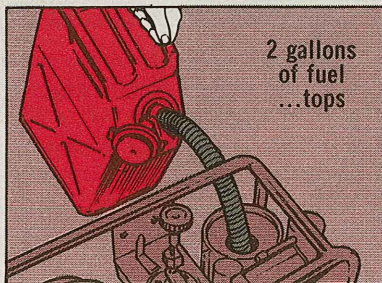
Just like a field mess menu, the M-2 burner PM menu is changed from time to time. Here're the changes in PM that will improve the burner's performance, stop extra parts replacement and maintenance downtime.

I'LL GET OL' M-2 FIRED UP IN A JIFF, BONNIE!

GREAT!

BUT DON'T RUSH!  
SAFETY IS MORE  
IMPORTANT THAN  
EARLY CHOW!

Be careful never to overfill the fuel tank. Stand the unit on end and pour in no more than 2 gallons of fuel. Stop pouring when you see fuel at the top of the fuel tank filler tube.



Keep 2 gallons of fuel in the tank—unless it's in storage—and you'll help stop condensation and rust buildup.

Overfilling the tank is a no-no because there won't be enough air space in the tank for fuel to expand. So, don't try to squeeze in a little extra gasoline by shaking the tank during fillup. Two gallons are the right amount. Period.

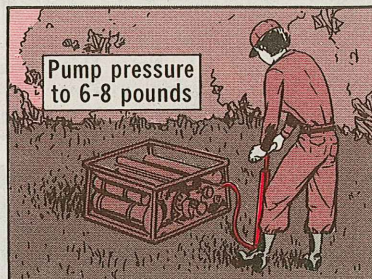
## Firing Up the Burner

Never start your burner unit while it's near a fueling point or open flames. And snuff your cigarette/cigar when you light the unit.

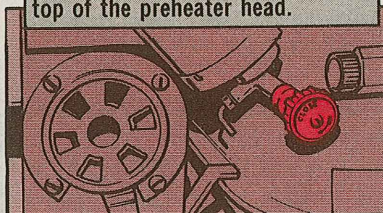
Pump the pressure in the tank up to 6-8 pounds. Turn the preheater cleaning orifice control around 2 or 3 times. Leave the handle pointing down.

This new starting poop will show up in a revision to Para 2-2b, TM 10-7360-204-13 (Jan 74). Pay attention to the Caution, Warning, and Note in the paragraph, tho.

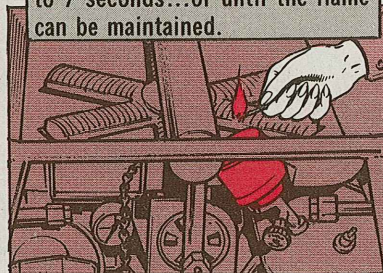
Pump pressure  
to 6-8 pounds



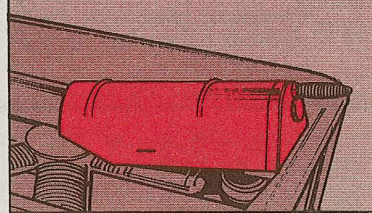
1. Open the preheater valve for 15 seconds, then close it. This is enough time for the fuel to wet the top of the preheater head.



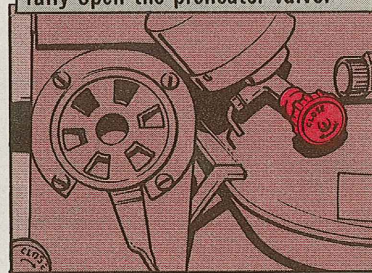
2. Next, hold a lighted match close to the preheater head and ignite the fuel. Allow fuel to burn 5 to 7 seconds...or until the flame can be maintained.



3. Place the generator preheater shield over the preheater.

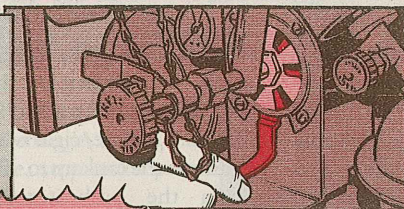


4. Open the preheater valve one-quarter turn and let the preheater burn for a minute. Then fully open the preheater valve.



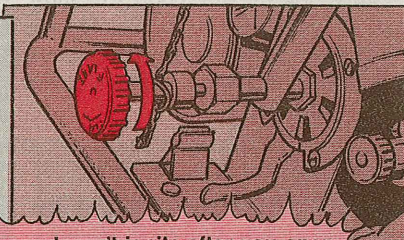


5. Let the preheater burn 10 minutes —or until the back end of the generator is hot to the touch. Move the air control shutter lever until the air shutter is in the half-open position.



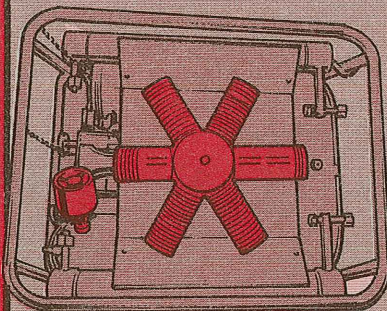
**Note:** This preheater burning time may vary in different outdoor temperatures.

6. Turn the generator (flame) valve knob slowly CCW (counterclockwise) until the burner ignites. The burner should ignite as soon as you open the valve. Take off the preheater shield.

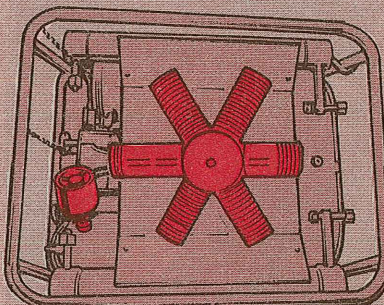


**Bonus PM tip:** If the burner doesn't ignite after you open the flame valve, close the valve immediately. Don't panic! Now, check the star burner head to see if it's in the right position.

The long arm of the star burner has to be directly under the generator...facing toward the preheater head and the air shutter. If the burner is not like Fig 4-4, TM 10-7360-204-13 shows, call your O-level expert to set it right.

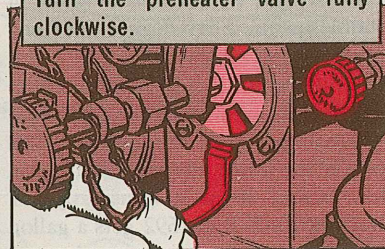


Wrong burner setup

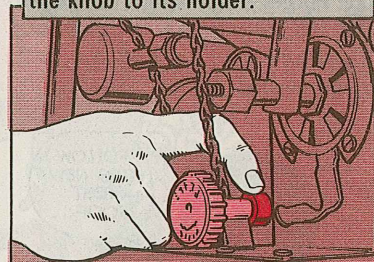


Right burner setup

7. Adjust the shutter lever until burner flame color is sea green. Turn the preheater valve fully clockwise.

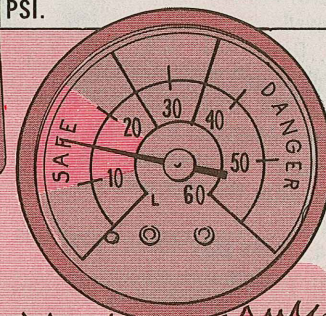


8. Use the generator valve knob to get the flame you want and return the knob to its holder.



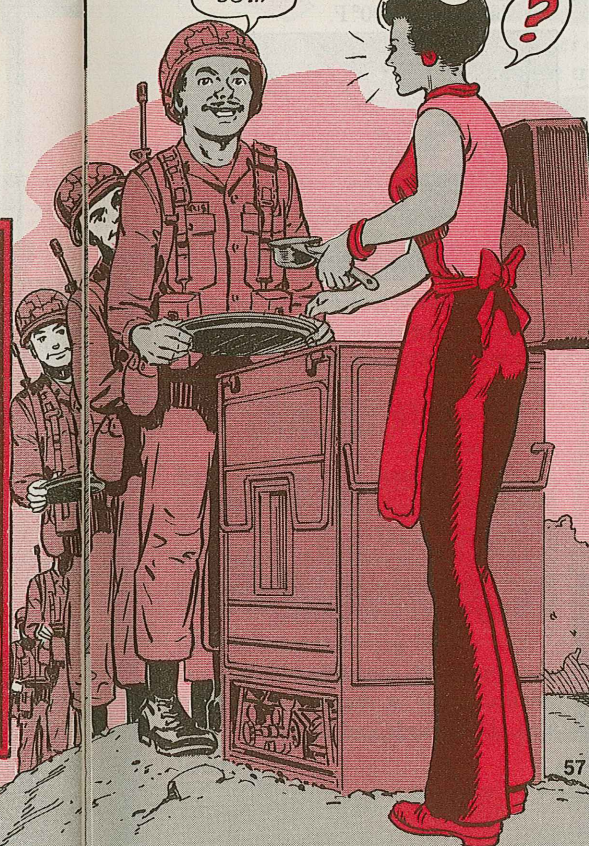
If pulsating yellow and sea green flames appear, slowly close the generator valve until you get a steady sea-green flame. Burn 5 minutes, then re-adjust the generator valve for the flame you want.

9. Keep the fuel system operating pressure between 10-20 PSI.



**Note:** If pressure on the gage reads between 20-25 PSI, turn the flame down to about 1/2 size...continue operation for 1/2 hour. If the pressure stays between 20-25 PSI, turn the unit off, remove it from the cabinet and allow it to cool before placing it back in operation.

YEAH--MY BUDDIES FROM A COMPANY AN' B COMPANY HEARD YOU WERE SERVIN' CHOW, BONNIE... SO...





## PMCS Change

O-level maintenance troops take note: Forget about using a tire gage to check the pressure gage as called for in Sequence 11, Table 4-2, Organizational PMCS.

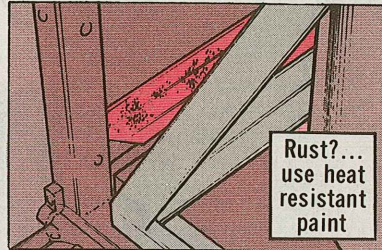
FOLLOW  
THIS NEW  
TEST  
POOP...

1. Inspect the gage for breaks, broken glass or bent needle.
  2. Check to see if the gage reads 0 (zero) when the tank filler cap is removed.
  3. Now, fill the tank—no more'n 2 gallons, remember—and close the filler cap. The gage should indicate a steady, even increase in pressure as you pressurize the tank with the hand pump.
  4. If the gage doesn't pass this test, replace it.
- This quarterly test is the only one required for the gage. It gets regular scheduling on the DD Form 314.

## Field Range

All field ranges bought after February 1974 have frames made of stainless steel. They do not need any touch-up painting whatsoever.

Units bought before this date have galvanized steel frames. Use heat resistant paint on any exposed steel part of the frame where galvanization has broken down and rust appears. NSN 8010-00-815-2692 gets a gallon of paint that protects parts that are exposed to heat up to 1200° F. You can also use an aluminum paint—NSN 8010-00-598-5054 (gal)—that is heat resistant up to 400° F.



If none of the galvanized steel parts on your range frame has deteriorated and rust has not started, forget the paint biz.

The stainless steel cabinet never needs painting.

Never operate the M-59 range while you're moving your kitchen outfit from place to place. The bouncing bit increases the pressure in the burner fuel tank. Extra pressure buildup you can do without.

Use a level gravel-covered site for the range if possible. Never use anything for a base that'll catch fire...like boards and logs.

## Fix for a Stuck Compass



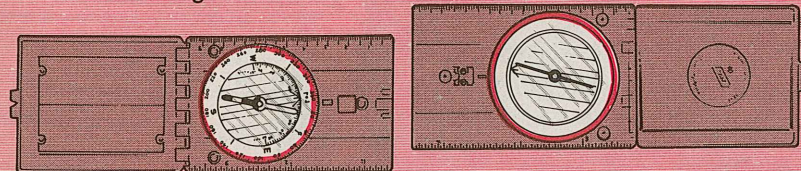
The Silva No. 3 Explorer and Ranger compass has a problem. When it gets wet and is left to dry, the bezel on the training compass gets stuck and won't turn.

HERE'S  
A FIX...

1. Spray WD-40 or a like silicone compound around the bottom edge of the aluminum bezel on top of the compass. Turn the compass over and spray around the aluminum ring on the underside of the compass.

Spray WD-40 around  
bottom edge of bezel

Turn over...



...spray into felt ring

2. Give the silicone solution 3 or 4 minutes to penetrate, then work the bezel until it turns freely.
3. Wipe the compass dry and you're ready to go.



# GRAB 'EM BY THE EAR!

On  
Supply  
Foul-  
Ups...

Somebody screaming in your ear sure gets your attention fast! But how do you scream into the ear of a shipper, who's fouled up your supply request?

GRAB UP A STANDARD FORM (SF) 364 REPORT OF DISCREPANCY (ROD)...

AND  
DETAIL YOUR  
PROBLEM...

SO THAT'S TH'  
STORY SF...  
I GOT TH'  
WRONG  
ITEM!

## REPORT OF DISCREPANCY (ROD)

☒ SHIPPING ☐ PACKAGING  
3. TO (Name and address, include ZIP Code)  
(AFS) U. S. Army Support Center  
2800 South 20th Street  
Philadelphia, PA 19101

5b. SHIPPER'S NAME  
WDC Corp.  
Chicago, IL 60617

7a. SHIPPER'S NUMBER (Purchase Order/shipment, Contract, etc.)  
0005  
7b. OFFICE ADMINISTERING CONTRACT  
RAIDF0623D1492

### SHIPMENT, BILLING, AND RECEIPT DATA

NSN/PART NUMBER AND NOMENCLATURE (a)	UNIT OF ISSUE (b)	QUANTITY SHIPPED/LED (c)	QUANTITY RECEIVED (d)	UNIT PRICE (e)	TOTAL COST (f)	CODE (g)	AC. ACTION CODE (h)
a. Ordered 9146-00-236-1104 Whammydiddle	EA	0	0	\$57.50	\$115.00		
b. Received 8375-00-842-1066 Whoozitz	EA	2	2	\$62.19	\$124.38	W1	1A

12. REMARKS (Continue on separate sheet of paper if necessary)

If additional info required, contact MSG Ernest, AUTOVON 745-3503

### 1. DISCREPANCY CODES

CONDITION OF MATERIAL	PRODUCT
C1 - In condition other than that indicated on release/receipt document	Q1 - Defective material (Applicable to Grant Aid only)
C2 - Expired shelf life	Q2 - Shortage of material
C3 - Damaged parcel post shipment	Q3 - Quantity less than that on receipt document
SUPPLY DOCUMENTATION	Q4 - Quantity less than that requested (Other than unit of issue pack)
D1 - Not received	Q5 - Receipt of parcel post shipments
D2 - Illegible or mutilated	Q6 - INCORRECT DATA MARKINGS (i.e., Name, Place, Lot, etc.)
D3 - Incomplete improper or without authority	Q7 - Missing data
D4 - Incomplete improper or without authority (Only when receipt cannot be properly processed)	Q8 - Missing data
MISDIRECTED MATERIAL	Q9 - Missing data
M1 - Addressed to wrong activity	Q10 - Missing data
COVERAGE/COPIES SHIPMENTS	Q11 - Missing data
O1 - Quantity in excess of that on receipt document	Q12 - Missing data
O2 - Quantity in excess of that requested (Other than unit of issue pack)	Q13 - Missing data
O3 - Quantity duplicates shipment	Q14 - Missing data
PACKING DISCREPANCY	Q15 - Missing data
P1 - Improper preparation	Q16 - Missing data
P2 - Improper packing	Q17 - Missing data
P3 - Improper marking	Q18 - Missing data
P4 - Improper unitization	Q19 - Missing data

### 13. FUNDING AND ACCOUNTING DATA

14a. TYPED OR PRINTED NAME, TITLE, AND PHONE NUMBER OF PREPARING OFFICIAL  
MSG Ernest NCOIC

15. DISTRIBUTION ADDRESSES FOR COPIES

364-102

1. DATE OF PREPARATION  
80 February 10  
2. REPORT NUMBER  
Company B  
5th Bn. 33rd Armor  
Fort Boone, UT 84113  
5b. NUMBER AND DATE OF INVOICE  
XXX123  
80 February 02  
6. TRANSPORTATION DOCUMENT NUMBER (GUL, Waybill, TCM, etc.)  
AKW349002011  
7. REQUISITIONER'S NUMBER (Requisition, Purchase Request, etc.)

### 10. DISCREPANCY DATA

QUANTITY RECEIVED (a)	UNIT PRICE (b)	TOTAL COST (c)	CODE (d)
0			
2	\$62.19	\$124.38	W1

### 2. ACTION CODES

1A - Disposition instructions requested (Reply on reverse)	1B - Material being retained (See remarks)
1C - Supporting supply documentation requested	1D - Material still required despite shipment (Not applicable to PMS)
1E - Local purchase material to be returned at supplier's expense unless disposition instructions to the contrary are received within 15 days (Reply on reverse) (Not applicable to PMS)	1F - Requisition shipment requested (Not applicable to PMS)
1G - Requisition not required. Item to be re-evaluated.	1H - No action required. Information only
1I - Other action requested (See remarks)	

14b. SIGNATURE  
MSG Ernest

STANDARD FORM

SF 364

HEY--  
SEE  
HERE, MR.  
SUPPLIER!!

WDC  
CORP.  
ORDER  
DEPT.



You need an SF 364 when:

- You get the wrong item or a substitute that won't work.
  - 2 like shipments arrive.
  - The box, package or container holds too many or not enough of the items you ordered—as long as the item cost is more than \$50—\$25 if it's a GSA item. You report any classified, sensitive, pilferable or controlled inventory item regardless of dollar value.
  - You get an item after you've cancelled it and received a cancellation OK from support—if the item cost is over \$50 (\$25 for GSA items). Staple a copy of the status card that OK'ed the cancellation to the SF 364.
  - You get somebody else's order.
  - You get status on an item—over \$50 in value (\$25 for GSA items)—telling you a government activity or depot is shipping you the item by parcel post, but it never arrives or arrives damaged.
- All problems with shipments from contractors or vendors, though, should be reported regardless of dollar value.
- You get an item—costing more than \$50 (\$25 for GSA items)—with a shelf life that's passed. (Look for a note or markings extending the original shelf life before you move out on this one!)
  - The supply paperwork (DD Form 1348-1) is missing or not right.
  - The item's technical markings are missing or incomplete. (You ordered and got the item you wanted. But it's marked with the number or info of a different item.)
  - If the same problems show up time and again from a supply source, fill out an SF 364 no matter how much or how little the item costs.



Make out an SF 364 for packaging goof-ups when:

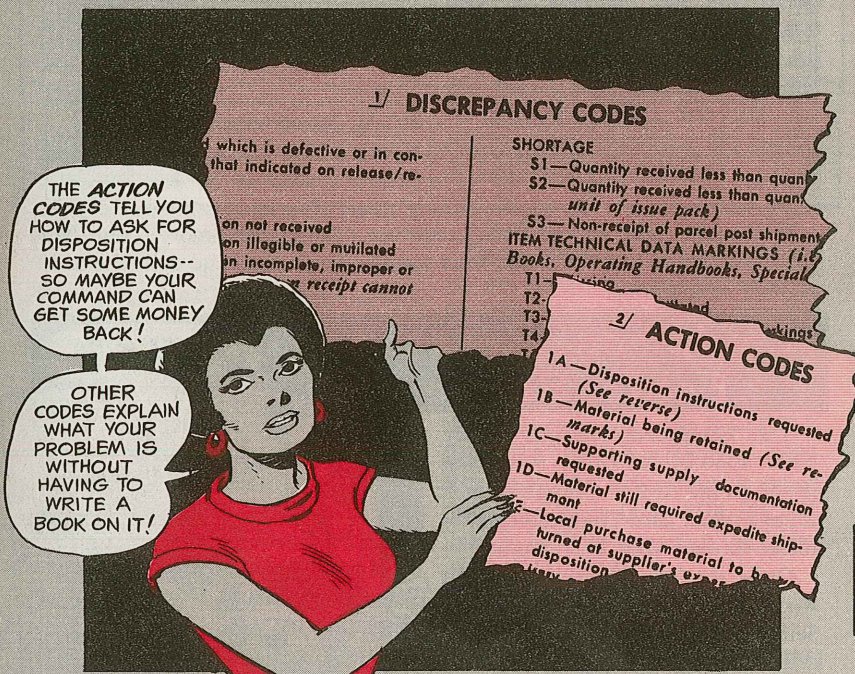
- The packaging failed and your item was damaged or lost—or parts of it were lost—and it'll cost you more than \$50 to repair or replace it.
- Bum packaging led to damage on gear or items that affect your combat or combat support mission or your safety and health. Get on the horn and call or send a message in this case. Follow-up with the written SF 364 within 24 hours.
- You find any packaging problems on hazardous material.

You use the SF 364 for a slew of other packaging problems, but most of those apply to warehousing and shipping-type outfits.

ROD's make a lot of noise. They grab the attention of the people responsible. And that form moves a lot faster than a DD Form 1348-1 or DA Form 2765 so the people who goofed can straighten out their stocks, take care of the shipment problems or whatever right away! That way, a ROD helps save you from a repeat goof—like on your next request.

An SF 364 ROD will not take the place of your request, though. If you still need the original item, put in a new request for it. (Action Code 1F "Replacement shipment requested" covers local purchase only.)

The SF 364 gives you some info on how to fill it out. Check the codes on the form carefully.



Still, if you need to tell 'em more about your problem, the SF 364 has room in the Remarks Block.

AR 735-11-2 Reporting of Item and Packaging Discrepancies gives you more help on filling out an SF 364 ROD. If you do not have a copy, your support will.



## The Numbers Game

Some of the new PMCS listings—like those in TM 9-2350-257-10 on the M60A1 (RISE)—have more than one table of checks. And some of 'em have the same sequence numbers. Tables 2-1 and 2-2—in the M60A1 PMCS—use the same numbers.

So, just writing down the item number on your 2404—without the table number—can leave you with a thoroughly confused mechanic.

When your PMCS has more than one table, always put the PMCS table number and the item number of the problem in column a of the DA Form 2404.

TM ITEM NO. a	STATUS b	DEFICIENCIES AND SHORTCOMINGS c	CORRECTIVE ACTION d	INITIAL WHEN CORRECTED e
2-12	X	Torsion bar for roadwheel broken		

TM ITEM NO. a	STATUS b	DEFICIENCIES AND SHORTCOMINGS c	CORRECTIVE ACTION d	INITIAL WHEN CORRECTED e
2	X	Table 2-1 Torsion bar for roadwheel broken		

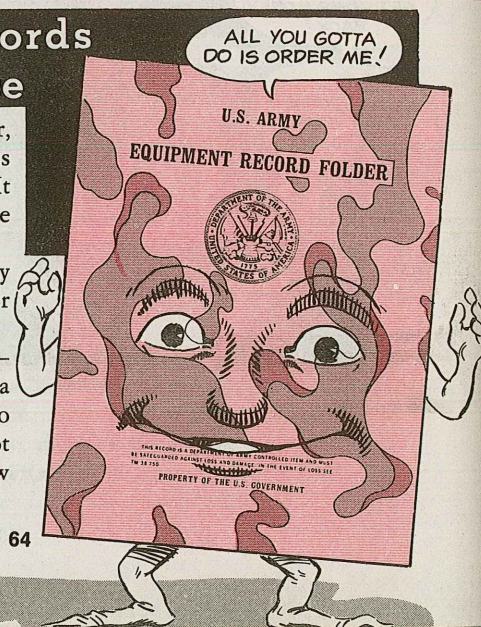
If the table number and PMCS sequence number need more room than column a has, put the PMCS sequence number in column a and write the table number in column c.

## Equipment Records Folder Source

The Equipment Records Folder, NSN 7530-01-065-0166, is a Class II—2 on the AMDF—supply item. It is not a repair part. You cannot get the folder through your PLL channels.

Order the folder from your Supply Room (Class II supply support) or Self-Service Supply Center (SSSC).

To keep from getting a substitute—like clear envelopes or manila folders—write Advice Code 2B (Do Not Substitute) on your request. Not all support outfits know the new folders are now available.



## Connie's Mini Minis

### Drain Goat's Air Tank

Drain your Gama Goat's sealed brake system's air reservoir tank every 30 days. L09-2320-242-12 is being revised to upgrade the interval from 6 months to 1 month. Too much moisture and oily residue can collect in the reservoir if it's left unchecked for 6 months.

### 350-GPM POL Pumps

Battery charge circuits in some 350-GPM pumps are mis-wired. The battery could be discharging even tho the ammeter says it's charging. Take a look at the wiring hookup on your flammable liquid pumps ASAP.

The wiring hookup for the Peabody Barnes pump Model US37ACG, NSN 4320-00-195-4914, should be like it shows in Fig 1-3, TM 5-4320-272-12. The hookup for the Gorman-Rupp pump Model 04A12C-MVG4D, NSN 4320-00-600-7590 should look like Fig 1-4, TM 5-4320-273-14.

### TB Order Form

Some important technical bulletins (TB's) are going on the endangered species list if your pubs forms aren't up to date. DA Form 12-34C (Aug 79) replaced the DA Form 12-34A. Unless you have a DA Form 12-34C filled out and sent in right away, you'll lose out on any new EIR Digests, Maintenance Expenditure Limits, Safety TB's, nonaeronautical equipment AOAP TB's and others. The TB ENG-series and TB 420-series are "write-in's" on the new form. Make sure your pubs people know about them!

### DA 2408-12 Landings

You pilots, filling out DA Forms 2408-12, grab your pencils. Make a note on para 4-11c (2) (d) 3 on page 4-42 of TM 38-750. The Landings Block entry for helicopters now only includes autorotations and touchdowns—no power recovery autorotations. You keep up with only those landings where you actually touch earth. Fill the Landings Block with gross landings/touchdown autorotations. Skip the count for power recovery autorotations.

### M880 Lock Wrong

Check—with a key—before you install a new door lock cylinder on your M880-series 1½-ton truck. Some wrong cylinders have been issued under NSN 2540-01-004-3631 and NSN 2540-01-004-2618 listed on page 2-113, TM 9-2320-266-20P (Feb 78). It may be a bummer if the package carries Contract No. DLA-700-79-P-0093 or DLA-700-F-0136 or DLA-700-80-P-5474. Return wrong door lock cylinders to Defense Construction Supply Center, ATTN: DCSC-SQS, Columbus, OH 43215. This word's in TARCUM Msg DRSTA-MT 231800Z Apr 80.

### Part-numbered Parts Pub

DA Cir 700-29 Supply Requisition Processing (Apr 80) is hot off the press. That pub tells you when and how to order parts and supplies with only a part number or with an NSN that is not on the AMDF. DA Cir 700-29 replaces DA Cir 700-27.

**Would You Stake Your Life <sup>right now</sup> on the Condition of Your Equipment?**



[illegible]

DA Form 4569

**When You Order Publications**

FOLLOW  
THE PAMPHLET  
PRECISELY WHEN  
FILLING OUT  
**FORM 4569...**

Department of the  
Military Publications  
Pamphlet 310-10-2

DA Pamphlet  
310-10-2

**The Standard Army  
Publications  
System  
(STARPUBS):  
Resupply Guide**

Headquarters,  
Department of the Army  
September 1979

...OR  
YOU'LL GET  
A REJECT  
FROM THE  
PUBS CENTER!