


Issue 372

PS

November  
1983

# THE PREVENTIVE MAINTENANCE MONTHLY



WE'VE COMPLETED OUR  
READINESS INSPECTION  
AND WE'RE ALL SET  
TO GO!

GOOD!  
WHEN PM'S  
DONE,  
THE BATTLE'S  
HALF WON!

See  
a **PM** fable  
Page 34



# Maintain the Momentum!

**Good training requires good maintenance!  
Good maintenance requires good training!  
Good maintenance training requires:**

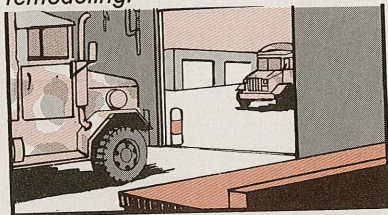
**GOOD PLL AND PARTS SUPPORT:** Plan ahead. Forecast needs. Program parts and supplies. Keep your demands flowing.



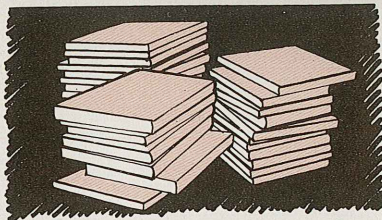
**GOOD INSTRUCTION:** Tap your resources. Get training or help from MAIT (Maintenance Assistance and Instruction Team), LAO (Logistic Assistance Office) and DS. Borrow tapes and viewers from your Learning Center. See TASC (Training and Audio-Visual Support Center) about ordering films.



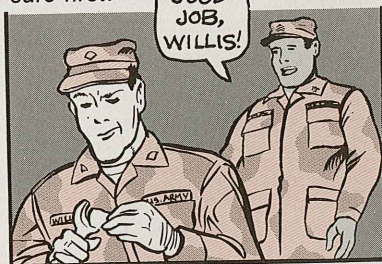
**GOOD FACILITIES:** Lay out the shop to keep work flowing smoothly. Make sure supplies and tools are nearby. Put in work orders and requests for space, materials or remodeling.



**GOOD PUBLICATIONS SUPPORT:** Pubs are the heart of maintenance training. Check your pubs account. DA 12-series forms up-to-date? Order current copies of pubs on DA Form 4569 through AUTODIN.



**GOOD ON-THE-JOB GUIDANCE:** New or unskilled people should work with more experienced ones. Get first-line supervisors/leaders in the shop and on the line. Spot check PMCS's. Set quality controls on work. Never assume a new person knows how to do a job. Make sure first!



**GOOD SUPERVISION:** Train your supervisors. Good leaders are made. Send them to an NCO academy or equivalent. Stick with them on the job. Have your NCO's give operators/mechanics feedback on

their work. Give the NCO's your feedback on their work, too!



**GOOD COMMAND EMPHASIS:** Maintenance training counts. It's your responsibility. Make sure your people know you know it! Get involved. Be on the spot when maintenance is done. Good work and good training pay off in readiness.



**GOOD RECOGNITION:** Give praise where it's due. Reward good work. Recognize your best people publicly with certificates, passes and awards. See AR 672-5-1 for info on awarding skill badges.



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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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# A Trailer Needs a Friend

HEY LITTLE BUDDIES...



...READY FOR SOME HEAVY HAULIN'?

HEY, GETA LOAD OF THIS, HE THINKS WE'RE HIS "BUDDIES"!

NO "BUDDY" OF MINE WOULD LEAVE US HERE TO RUST AND ROT — WITH NO PM FOR MONTHS!

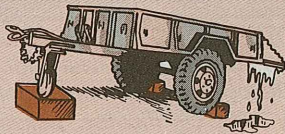
Out of sight, out of mind. Sad but true for many small cargo trailers. They spend a lot of time in an out-of-the-way corner of the motor pool. When it's time to move out, they may not be ready to go. You can make sure your trailer's hot to trot with faithful PM. Grab the TM for your trailer and pull the operator PMCS. Water standing in the trailer box will rust it. Park open-top trailers so water will drain out.

- Park your  $\frac{3}{4}$ -ton or  $1\frac{1}{2}$ -ton trailer with the front end higher. Set the caster wheel or landing leg on a block about 6 inches high. Put a block behind each wheel and open the tailgate.
- Park the  $\frac{1}{4}$ -ton trailer level and open the drain valves. (Be sure to close the valves before you float the trailer).

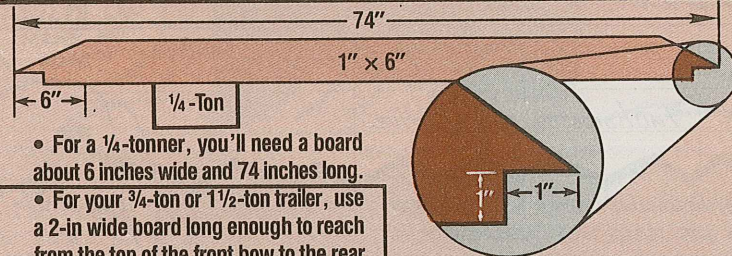
## Open drain valves



## Tilt up front end

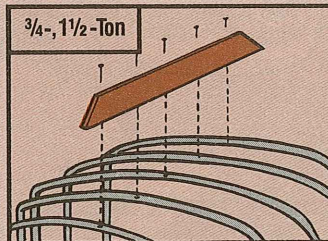


- When you park your trailer, chock the wheels and release the handbrakes. That way the brakes won't be stuck on when you need the trailer.
- Fold your canvas and store it in a clean, dry place. If you have to keep the canvas on, rig a slant board under it so water will run off.



- For a  $\frac{1}{4}$ -tonner, you'll need a board about 6 inches wide and 74 inches long.
- For your  $\frac{3}{4}$ -ton or  $1\frac{1}{2}$ -ton trailer, use a 2-in wide board long enough to reach from the top of the front bow to the rear box.

- Drill  $\frac{1}{4}$ -in holes in the top center of each bow. Drill matching holes in the edge of the board. Mount the board with  $\frac{1}{4}$ -in carriage bolts, washers and nuts.
- Even when your trailer is covered, eyeball it for rust. The best rigged shelter can't head off all rust. Rusty? Paint missing? Report it!
- Check air hoses, electrical cables and safety chains, too. Keep them off the ground. Working lights and chains are required by AR 385-55, Para 2-16b.





## ✓ Bum Tachometer Means NMC

GOOD MORNING, MR. PHELPS... YOUR MISSION, SHOULD YOU DECIDE TO ACCEPT IT, IS...

NOT TODAY, THANKS. I GOT A BUM TACHOMETER!..

Some PMCS tables in the -10 TM's are not clear when it comes to your vehicle's tachometer and readiness reporting.

Your truck is "not mission capable" if the tachometer's busted. That's the word in TACOM Messages DRSTA-MTC 251800Z Feb 83 and DRSTA-MTC 221400Z Mar 83. 'Course, this goes for a tachograph, too.

...st flights due... was not... in acc... m... ed, ... r...  
overdue MWO has not been accomplished.

ALL INSPECTIONS AND EQUIPMENT CONDITIONS RECORDED ON THIS FORM HAVE BEEN DETERMINED IN ACCORDANCE WITH DIAGNOSTIC PROCEDURES AND STANDARDS IN THE TM CITED HEREON.

8a. SIGNATURE (Person(s) performing inspection)		8b. TIME		9a. SIGNATURE (Maintenance Supervisor)		9b. TIME		10. MANHOUR REQUIRED	
<i>John Brown PFC</i>									
TM ITEM NO.	STATUS	DEFICIENCIES AND SHORTCOMINGS		CORRECTIVE ACTION		INITIAL WHEN CORRECTED			
a	b	c		d		e			
<i>13</i>	<i>X</i>	<i>Tachometer inoperative</i>							

A working tachometer is the only way you can make sure your engine is operating at the right RPM levels. If the RPM is too low, your engine lugs; if too high, it overspeeds. Damage can result in either case.

If you shift your transmission at the wrong RPM, it can be damaged, too. Minimum RPM is also needed to make sure your engine gets enough lubrication and that your brakes and steering work right.

Check your operator's manual — either in the PMCS table or the operating section — for RPM requirements.

THE 2½-TON, F' RINSTANCE, IS NMC WHEN THE TACHOMETER DOESN'T WORK!

## 5-Ton Frame Faults = NMC

RUMBLE

RUMBLE

THIS ISN'T YOUR FAULT, BUT FRAME FAULTS CAN MAKE ME NMC!

I SUPPOSE YOU'RE GONNA BLAME ME FOR THIS ALSO!

"Any obviously cracked, loose or broken side rails, crossmembers, welds, bolts or rivets" rate your 5-ton truck Not Mission Capable.

This word in TACOM Msg DRSTA-MTB 151500Z April 83 will show up in the PMCS tables in TM 9-2320-211-10-2, TM 9-2320-230-10, and TM 9-2320-260-10-2.

## Master Cylinder Decals

You need a caution decal on your brake master cylinder after changing to silicone fluid. NSN 7690-01-111-2265 gets it. Para 4c and d of TB 43-0002-87 (Feb 82) has the word.

## Jack for 5-ton Trucks

The 8-ton hydraulic jack, NSN 5120-00-595-8396, is a Basic Issue Item for all M39-series 5-ton trucks. The Usable On Code in TM 9-2320-211-10-1, Page B-11, should be A. The 12-ton jack will be taken out of the BII.



2½-Ton, 5-Ton Trucks...

## Wheel/Drum Switch Dangerous!

IT JUST  
FELL OFF?  
HOW CAN  
THAT  
HAPPEN?

EVER HEAR OF  
GETTING THE  
RIGHT SHOE ON  
THE WRONG FOOT?

Your 2½-ton or 5-ton truck has right-side and leftside wheel mounting studs and nuts. If you get 'em reversed — right side on the left, for example — you're in for trouble.

This can happen if you take the wheel-and-drum assemblies off both sides of your truck at the same time.

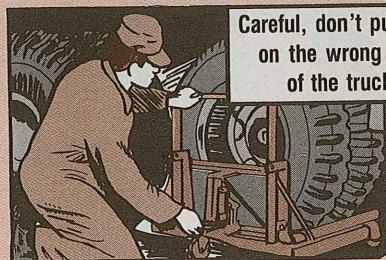
First off, the nuts work loose. Then the wheel loosens, destroying stud threads and wallowing out the mounting holes in the wheels.

Finally, the nuts fall off completely — and you lose the wheel.

You can easily keep this disaster from happening, tho. The brake drum studs on the front wheels are clearly marked R or L on the ends. And the inner cap nuts on the rear wheels are marked the same way. So before you put a wheel assembly on, check to make sure it's on the correct side of the truck.



Better yet, take off the wheel assemblies on only one side of the truck at a time. That way, you can't get mixed up.



Tactical Wheeled Vehicles...

## Solving the Tachograph Maze

Know what kind of tachograph, if any, is in your truck? They vary from model to model.

Know what chart fits that tachograph? The instrument won't work right with the wrong chart.

Your TM's may or may not help you answer these questions.

Here's a chart that lays everything out for you — the trucks that have tachographs, models used and applicable charts:

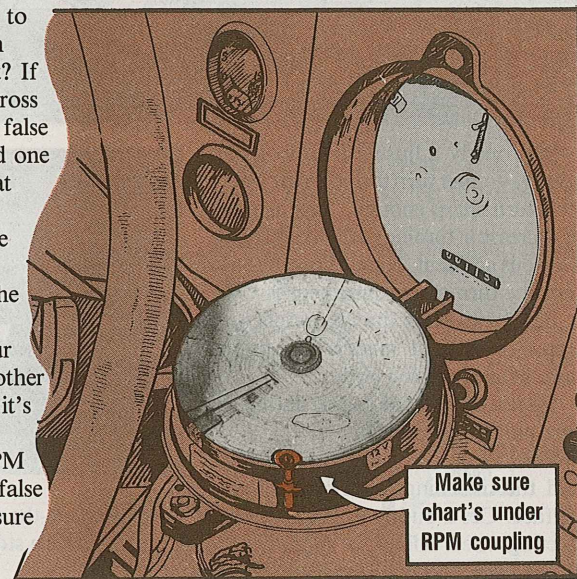
CHART  
YOUR  
WAY  
OUT OF  
THE  
MAZE!

Trucks	Tachograph Models	Tachograph NSN's	Chart NSN's
M818	TCO-566	6680-01-039-8269	6680-01-121-9866
M911	TCO-1309-7	6680-01-063-1439	7530-01-060-1628
M915-series	TCO-15-7	6680-01-096-3299	7530-01-060-1628
M746	TCO-15-4	6680-00-306-9171	7530-00-027-9779
M52A1 (Late Models)	TCO-566	6680-01-039-8269	6680-01-121-9866
M52A2 (Late Models)	TCO-566	6680-01-039-8269	6680-01-121-9866

## Tachograph Tip

Are you assigned to read the tachograph charts for your unit? If so, you may run across a chart that gives a false RPM reading. Hold one before you send that tachograph off for repair. Could be the chart was installed wrong — causing the trouble.

Doublecheck your findings. Install another chart, making sure it's under the RPM coupling. If the RPM reading comes out false again, you can be sure the tachograph's at fault.





# Check Turning Radius



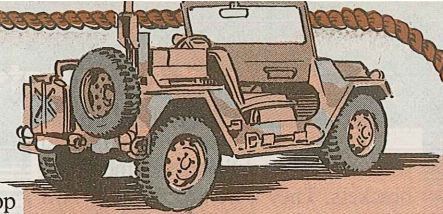
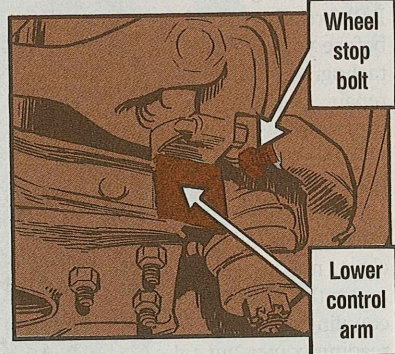
Improperly adjusted turn stops let your 1/4-tonner turn too sharp or won't let it turn sharp enough. This increase or decrease in turning radius could cause a serious accident. Here's how to make sure the turn stop adjustment is OK.

Begin with either the left or right turn stop — it doesn't matter. The procedure's the same for both.

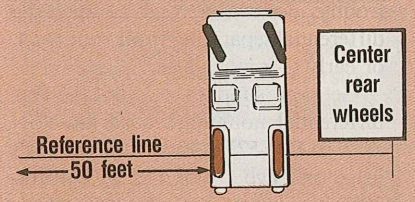
Do not operate the engine during the first part of this check.

First, clean the turn stop bolt head and the matching lower control arm surface. Get a buddy to hold a strip of paper between the two. Then turn the steering wheel full left or right, depending on which turn stop you're checking.

Tell your buddy to let go of the paper.



## Left Turn Check Step 1.



It should be pinched between the stop bolt and lower control arm surface. If the paper falls out, report the problem to organizational maintenance. If the paper doesn't fall out, check the other turn stop the same way. If they both check out OK, pull an operational check of both the left and right turning radius.

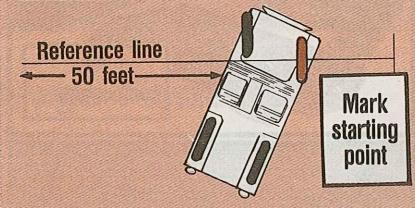
In a clear area, stretch out a 50-foot length of string or rope for use as a reference line.

For the left turn check, position your truck so the rear wheels are centered on the reference line. Then turn the steering wheel full left.

Hold the steering wheel full left and back up until the right front wheel is centered on the reference line. Mark this point on the line.

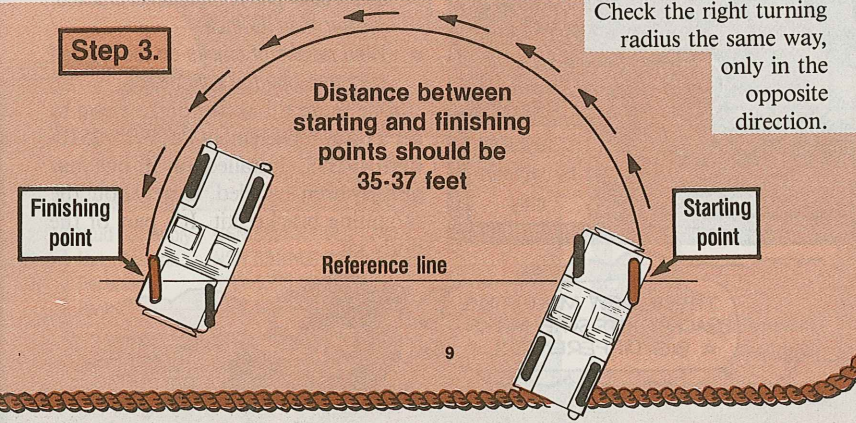
Drive the truck forward in a full left turn until the right front wheel is centered over the other end of the reference line. Mark this point on the line.

## Step 2.



Measure the distance between the starting and finishing points. If it's 35-37 feet, the turning radius is OK. If the distance is less than 35 feet or more than 37 feet, your support needs to adjust the turn stop.

## Step 3.



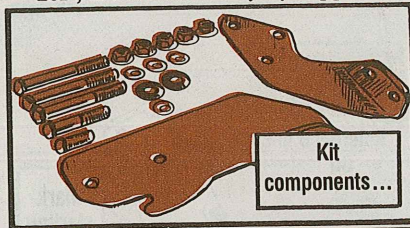


## Cracked Brackets Cause Trouble

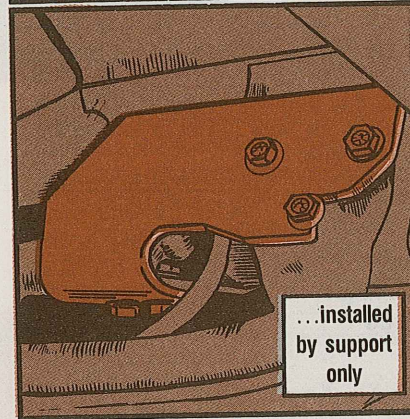
There're some 1/4-tonners in the field with cracked rear differential mounting brackets. They were produced by AM General under contract No. DAAE07-71-C-0103.

If you don't get the problem corrected pronto, you'll be in for much bigger trouble down the road — like the differential separating from your truck or early U-joint failure.

Get your support to install the rear differential mounting bracket kit, NSN 2520-01-005-5238. Even tho the kit's listed on Page 177 of TM 9-2320-218-20P, it's installed only by support.

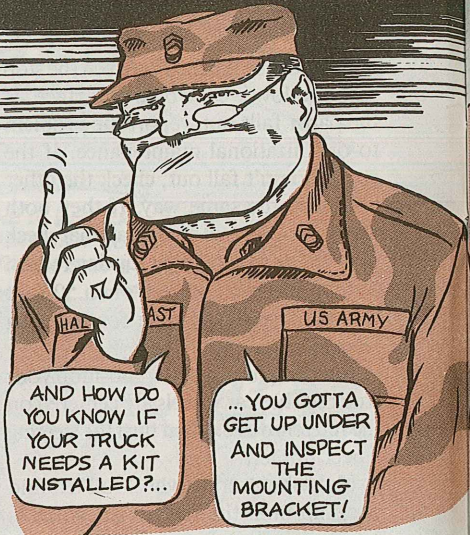


Kit components...



...installed by support only

THESE NEW MOUNTING BRACKET KITS SURE MAKE A BIG DIFFERENTIAL!



AND HOW DO YOU KNOW IF YOUR TRUCK NEEDS A KIT INSTALLED?...

... YOU GOTTA GET UP UNDER AND INSPECT THE MOUNTING BRACKET!

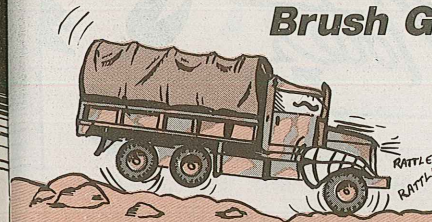
If you find any one of the following, it's time to get busy:

- Bracket completely separated from the frame.
- Mounting bolt pulling through the bracket.
- Spot welds holding bracket to the frame rail missing.
- Bottom seating pad of bracket cracked, or any other part of the bracket cracked, greater than 1/4 inch.
- Weld repairs of cracks on the bracket performed by the contractor.

One more thing. If you're going to get a body replacement kit, NSN 2510-01-104-4383, installed, or if one has already been installed, forget about the mounting bracket kit. It's part of the body kit.



## Brush Guard Wearstrips

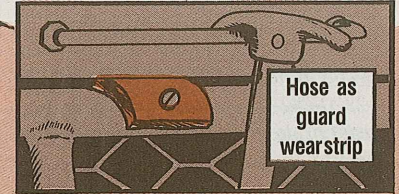


I N...NEED... N...  
NEW... B... BRUSH...  
...G...GA...GUARD...  
W...WEAR...STRIPS!

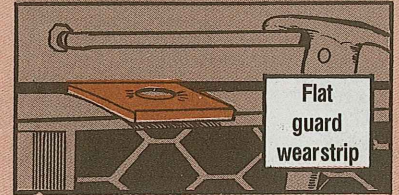
The brush guard wearstrip — Item 23, Fig 18-1 of TM 9-2320-260-20P — is not available.

For the tubular brush guard, make a wearstrip from scrap heater hose about 4 inches long. Slit the hose and slip it over the brush guard. Secure it with the nut and bolt from the old wearstrip.

For the flat brush guard, use a piece of tire sidewall 1 1/2-in by 5-in. Install it with the riveter in the No. 1 Common Shop Set.



Hose as guard wearstrip

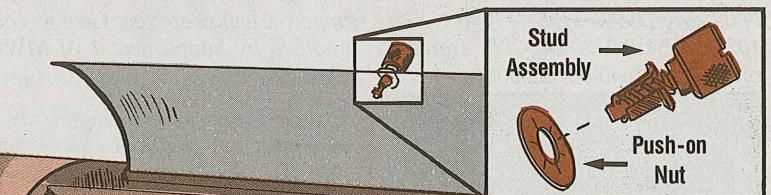


Flat guard wearstrip

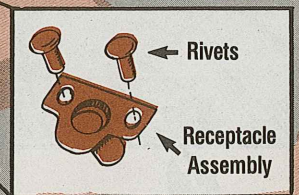
## Windshield Storage Fastener

A missing fastener can leave the door on your Gama Goat's windshield storage compartment flapping in the breeze.

Here're the parts you need to keep the door on top of the engine cover secure:



- |               |                      |
|---------------|----------------------|
| Stud Assembly | NSN 5325-01-069-2780 |
| Nut, Push-on  | NSN 5310-00-337-8329 |
| Receptacle    | NSN 5325-00-505-4798 |
| Rivet         | NSN 5320-00-075-5139 |



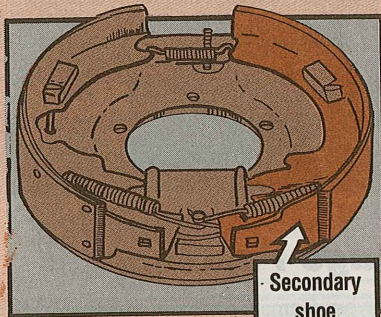
Rivets  
Receptacle Assembly



# Goat Notes

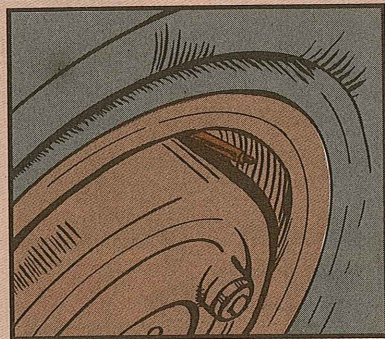
## Brake Snafu

The note on Page 12-39 of TM 9-2320-242-20-3-2 says the secondary (rear) brake shoe lining is longer than the primary lining. That's not right. The secondary brake shoe lining is shorter.



Tire Valve

You don't get the right tire valve with NSN 2640-00-995-3138 — Item 1, Fig. 102 of TM 9-2320-242-20P. Instead, order NSN 2640-00-729-6081.



## Truss Hull Plugs

Order NSN 5365-01-046-0438 to get a plastic plug to fill the hole in the hull on the Gama Goat when the truss is removed. This is not listed in the parts manual. The plastic plug is easier to remove than the metal ones.

## NSN Changes

The NSN's for Items 2 and 3 on Page 63 of TM 9-2320-242-20P are no good. Instead, use NSN 5940-00-950-7784 for the terminal board assembly and NSN 6150-00-681-1514 for the terminal link.

## Brake Hazard

If the brake pedal in your Gama Goat is hitting the steering column, you've got a safety hazard! Get the vehicle back to support. Chances are your Goat was not modified by Supplement 1 of MWO 9-2320-242-50-1.

CHECK OUT THESE NOTES CAUSE B-A-A-D BRAKES CAN CAUSE YOU B-A-A-A-D BREAKS!



# A Cornucopia of PM Tips

## Steam Ruins Rustproofing

If your vehicle has been rustproofed, steer clear of steam-cleaning machines. Steam heat or hot water loosens the coating — may remove it completely. Instead, use high-pressure water and detergents. Never direct high-pressure water at electrical components, seals, carburetors, etc. Can't tell if your vehicle has been rustproofed? Eyeball the wheel wells and underbody for a waxy, rubbery coating.

## Trailer Bow Clip

NSN 2540-00-177-8120 gets you a bow clip for your M101A1 trailer.

## Reverse M870 Brake Chambers

Brake chambers mounted below the axles on your M870 semitrailers can be damaged. Head off problems by having the chambers remounted on top of the axles. The word's on Pages 5-19 thru 5-35 of TM 43-0143. Your DSU will make the change.

## Semitrailer Brake Hose

Get the flexible hose that runs from the master cylinder to the hydraulic tee on your M117A1, M118A1 and M119A1 semitrailers with NSN 4720-00-580-7470. It's not in TM 9-2330-210-24P.

## 6-HP Engine Rope

TM 5-2805-203-24P on the 6-HP Mil Std engine has the wrong NSN for the starter rope. The correct NSN for Item 4, Fig 12 is 2990-00-972-7950.

## Battery Box Cover

Make sure your ¼-ton truck has a battery box cover, NSN 6135-01-122-2278. It keeps metal objects—the seat frame, for instance—from contacting the batteries and shorting them out.

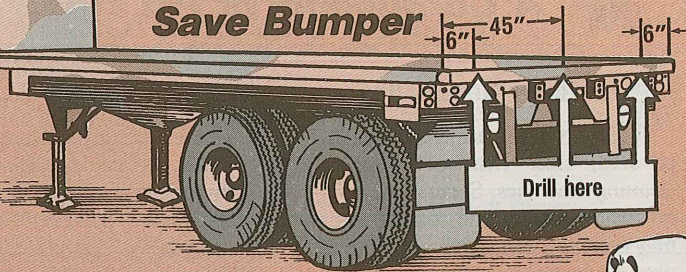
## ¼-Ton Truck Seat Frames

The front seat frame on M151-series trucks has NSN 2540-00-177-7782. The rear seat frame comes under NSN 2540-00-177-7780. They're not yet listed in TM 9-2320-218-20P.



M871 Semitrailer...

## Drain Holes Save Bumper



If your M871 semitrailer is one of the first produced, you may have a rust-out problem.

The dock bumper that runs flush across the back of the trailer bed is hollow and can collect water. On M871's with serial numbers between NXO3MQ-M871-0001 and NXO5CS-M871-0970 there're no drains. So have your mechanic drill three 1/4-in holes in the underside of the bumper — 6 inches from each side of the trailer and 45 inches from the left side.

DRILL IT  
AND  
SPILL IT!



M128 & M129  
Semitrailers ...

## Boarding Ladder Fix

Look for broken or missing rivets on your boarding ladder! The rivets attach the steps to the side rails.

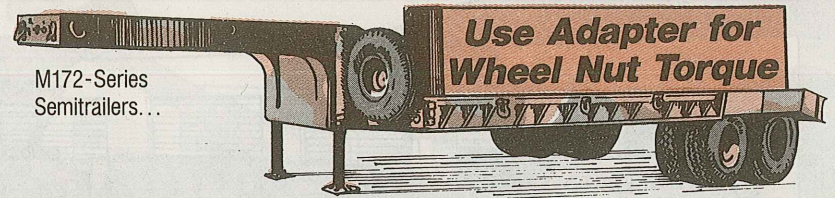
To head off a broken step — and an accident — get your mech to weld a 1/8-in bead where the step joins the side rail. This calls for welding rod of 5356 filler metal like NSN 3439-00-803-9498.

I WOULDN'T  
ALLOW MY  
STEP-MOTHER  
UP ON THIS!

ALL'S WELL  
THAT ENDS  
WELD!

Rivets  
missing  
or  
broken?

Weld  
bead



M172-Series  
Semitrailers...

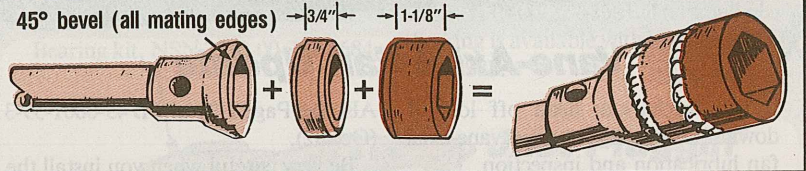
To torque inner wheel lug nuts on your M172-series semitrailer, you need a socket adapter.

Get one with FSCM 19207, PN 11662541. It'll let you use the 1 1/2-in socket, NSN 5120-00-293-0094, in the No. 1 Common Shop set.

Tighten the inner lug nut to 300-350 lb-ft and the outer nuts to 450-500 lb-ft.

## Improvised Lug Wrench

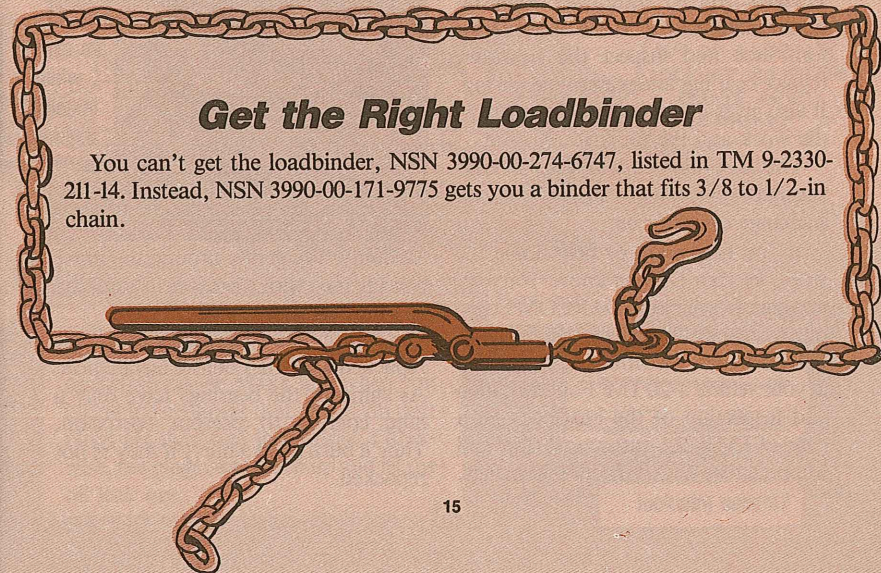
Your support can fix lug wrench, NSN 5120-00-316-9217, so it'll fit the inner nuts. Use this if you need to change a tire on the road. They'll cut off part of the hex end, weld on a piece of tubing and put them together again like this:



M172-Series Semitrailers ...

## Get the Right Loadbinder

You can't get the loadbinder, NSN 3990-00-274-6747, listed in TM 9-2330-211-14. Instead, NSN 3990-00-171-9775 gets you a binder that fits 3/8 to 1/2-in chain.





DS

WHY WAIT?  
WE CAN DO THE  
BEARING WORK  
OURSELVES!

### Vane-Axial Fan Update

You mechs can head off lots of downtime by doing your own vane-axial fan lubrication and inspection.

TACOM Msg DRSTA-MCC 112200Z Apr 83 authorizes organizational maintenance to disassemble the fan, lube and inspect the bearings, replace bearings and reassemble the fan. It also gives information on how to do the work and the tools you'll need.

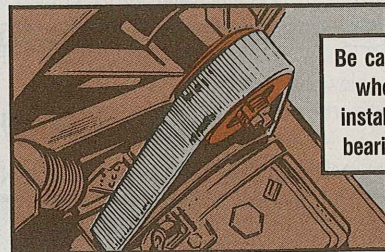
This'll be allowed until your DS has enough replacement fans on hand to exchange one-for-one.

If you need tools or help doing the work, let your DS unit know. You may also contact your local DARCOM Logistics Assistance Representative for help.

Instructions for removing the fan are in your vehicle's -20 TM. For lubrication and inspection of the bearings, get a copy of TM 9-214, Inspection, Care and Maintenance of Antifriction Bearings.

Also see Page 2-31 of TB 43-0001-39-3 (Oct 82).

Be very careful when you install the bearings on the impeller and shaft



Be careful when installing bearings

assembly. Tap gently around the inner bearing race with a brass drift until the bearings are seated right.

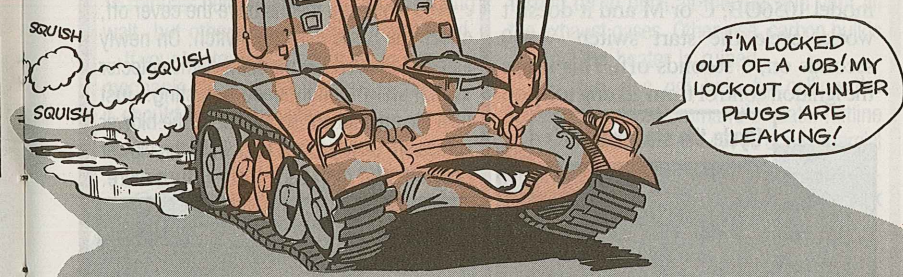
Replacement bearings must be repacked with GIA before installation. As shipped, the bearings have only a lube coating to prevent corrosion. They'll burn up in a hurry if they're not repacked.

NSN 9150-00-985-7247 gets a 6.5-lb can of GIA. Use NSN 9150-00-985-7248 for a 35-lb can.

Bearing kit, NSN 2930-00-781-8684,

contains both bearings needed. If you need only the large front bearing, use NSN 3110-00-227-3381. The small rear bearing is available with NSN 3110-00-114-5988.

### Just Pluggin' Along



I'M LOCKED OUT OF A JOB! MY LOCKOUT CYLINDER PLUGS ARE LEAKING!

A quick check of your vehicle's lockout cylinders can keep you operating longer. Make sure when you install the cylinders that the oil fill port plugs are tight and lock-wired. Otherwise, the plugs can loosen up and let the oil leak out.



Plugs tight?...

... lockwire secure?



NOTHIN' WRONG WITH OUR PERSONNEL HEATER!

# Hot Heater Tips

WHEN YOU'RE HOT YOU'RE HOT!..

...AND WHEN YOU'RE NOT YOU'RE NOT!

BRRRR

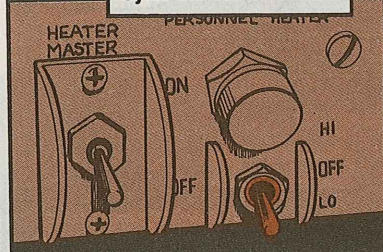
## Hupp 510A and B Heaters

With winter coming on, the hottest item on your combat vehicle should be the personnel heater. Unfortunately, when needed most, many heaters fail.

Make sure your heater's ready when it's needed — check it out now.

If you have a Stewart-Warner heater model 1056OB, C or M and it doesn't work, cycle the start switch — 30 seconds on, 5 seconds off. This keeps the ignition control from getting too hot.

### Cycle the starter switch

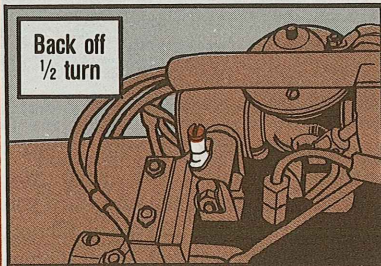


If your heater won't start after the third try, troubleshoot like your -10 TM says. If it still won't start, report it to your mechanic.

Voltage to the igniter is important — between 10 and 12 volts is ideal. Get your mechanic to check it. A reading below 9 volts and visible hot spots are sure signs of a shorted igniter. Replace it. If you still don't get the required 10-12 volts, let support check it out.

And while you mechs have the cover off, check the flame detector switch. On newly installed Stewart-Warners, the flame detector switch will probably need adjusting. Just turn the adjustment screw out till the blower comes on, slowly turn it back in till the blower goes off, and then back it off 1/2 turn more.

### Back off 1/2 turn



Make this adjustment only when your heater is off and cool.

Your Hupp heater doesn't work like a Stewart-Warner. Always follow these starting tips:

Let the heater stay in the start mode for 4 minutes. That's how long it takes a Hupp igniter to get hot.

If the heater doesn't start right off, wait 15 minutes before trying a restart. It's a long wait, but otherwise your heater will flood.

If your heater doesn't start again, get your mechanic to check the incoming voltage — it should be 24-28 volts.

Keep fuel pump filters clean. Quarterly servicing is called for, but check 'em more often than that.

Run your heater for at least 5 minutes with the indicator lamp on. This prevents flooding during shut down.

Heaters must keep running after they're turned off to burn all the fuel and vent all the exhaust gases. Otherwise, carbon builds up and the heater is ruined.

You can also get help by calling the Tank-Automotive Command's heater hotline — AUTOVON 786-7417/7745 or commercial 313-574-7417/7745 or FTS 973-7417/7745.

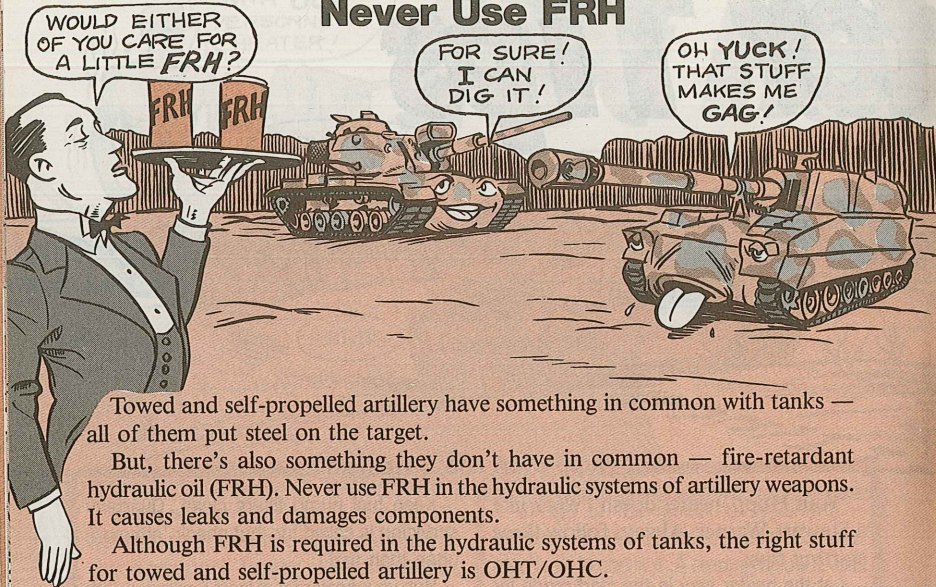
As a final measure, have your PLL clerk order a winter supply of igniters.

USE THE FOLLOWING NSNS:

Heater	Igniter
S-W "B"	2540-01-013-0846
S-W "C"	2540-01-083-0691
S-W "M"	2540-01-071-0651
Hupp "A"	2540-00-930-8938
Hupp "B"	2540-01-071-0652
	4520-00-217-5782
	2540-00-941-8681
	2540-01-115-1805



## Never Use FRH



Towed and self-propelled artillery have something in common with tanks — all of them put steel on the target.

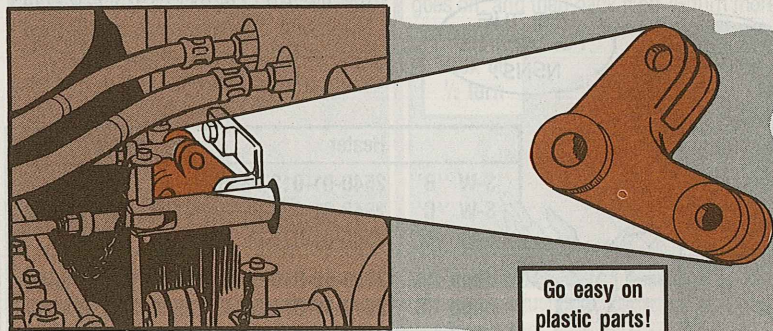
But, there's also something they don't have in common — fire-retardant hydraulic oil (FRH). Never use FRH in the hydraulic systems of artillery weapons. It causes leaks and damages components.

Although FRH is required in the hydraulic systems of tanks, the right stuff for towed and self-propelled artillery is OHT/OHC.

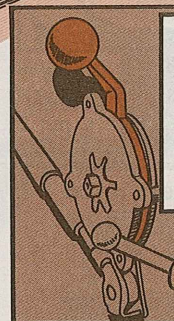
## One Strike and You're Out!

If the accelerator and throttle control linkage gets balky and doesn't want to hook up easily, don't go banging on the parts. At least 5 linkage parts are plastic and won't stand up to a hammer.

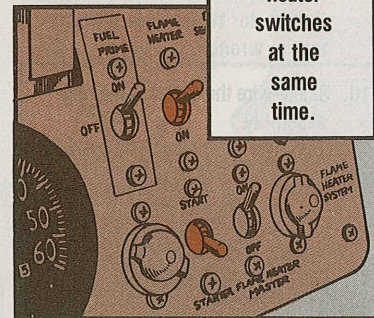
Take it easy on the bellcrank and control levers. If the linkage is giving you fits, follow the instructions in your howitzer's -20 TM. Pushing and shoving — and most of all hammering — will get you nothing but broken parts.



## There's a Good Start Here



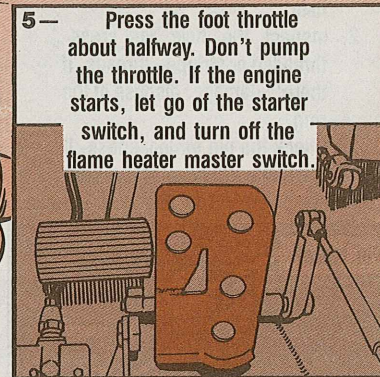
1 — Leave throttle lever at idle position.



2 — Engage the starter and flame heater switches at the same time.

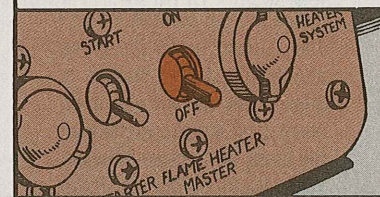
3 — Crank the engine while applying heat for about 30 seconds.

4 — Release the heater switch.



5 — Press the foot throttle about halfway. Don't pump the throttle. If the engine starts, let go of the starter switch, and turn off the flame heater master switch.

6 — If the engine won't start, keep cranking but don't apply any throttle. Cycle the heater as you crank, 10 seconds ON and 3 or 4 seconds OFF until the engine starts. Again, be sure to turn off the flame heater master switch.



7 — If the engine won't start after this 30 seconds of cranking — or if it starts, stops and won't start again within 10 seconds — stop trying and get help from your mechanic.



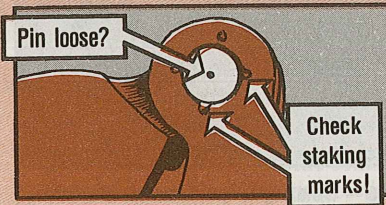
## Check Your Quick-Disconnect!

The quick-disconnect ring assembly on the left and right final drive can suddenly fail, leaving your tank out of control!

Run an inspection on those quick-disconnects right away. If they're not A-OK, your vehicle's not safe to operate. Don't forget to check out new disconnects, too.

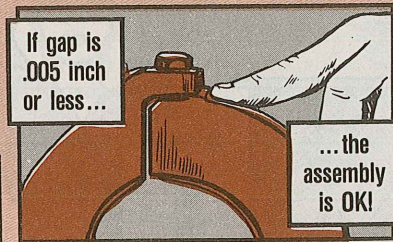
### Do This Now

1. Remove and clean the disconnects, especially the tapped hole.
2. Inspect the hole for cross-threaded or stripped threads. If there's damage, dispose of the ring.
3. Check the pin for looseness. If it's loose, dispose of the ring.



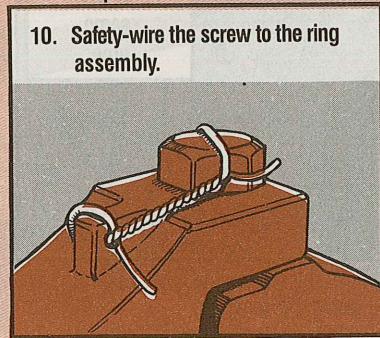
4. Look for cracks. If you find any, dispose of the ring.
5. Look for bent pivot bosses. If they're bent, dispose of the ring.
6. Check the pin staking marks. They should be on the brass and deep and wide enough to move brass over the pin. If the stake is on the pin, restake on the brass in 4 places between stake marks on the pin. If the chamfer on the brass is so large that metal won't mushroom over the pin when it's staked, dispose of the ring.

7. With the ring closed and the screw turned finger-tight, measure the gap of the stop. If the gap is .005 inch or less, the assembly is serviceable (metal-to-metal contact is preferred).



8. Insure the screw is not damaged in any way. If it is, use another screw, NSN 5305-01-042-4436.
9. When installing, lightly tighten the screw with a ratchet, then tighten to 10-20 lb-ft with a torque wrench.

10. Safety-wire the screw to the ring assembly.



Field Service Bulletin No. 31 (3 Feb 81) gives more details on this subject. You can get a copy from your local field maintenance technician. If you need help, contact your Logistic Assistance Office.

## Fuel Tank Repairs

THERE'S A LIMIT, HULL MECHS, ON HOW MUCH REPAIR YOU CAN DO TO CRACKED FUEL TANKS ON YOUR M60'S

Organizational maintenance repairs minor cracks up to 3 inches long and 1/16 inch wide. Any crack longer or wider is up to DS.

You need accelerator and sealer kit, NSN 8030-00-275-8110. It's Item 63 of the expendable supplies list on Page D-3 of TM 9-2350-257-20-1-4. Details are on Pages 7-125 and 7-126 of TM 9-2350-257-20-1-2.





## Cover Crusher

Raised cover assemblies on the M240 machine gun and the turret ceiling of M1 tanks make for crushing experiences. For the covers, that is. There's not enough clearance between the turret ceiling and an open cover.

A machine gun fired with a crushed cover is dangerous. Be sure the cover's closed after loading the weapon or clearing it. Take a second look at the cover before the main gun is depressed.

Keep closed...

...on M1 coax mount

Nut, screw and washer

## Watch That Washer

Frequent removal of the nut, screw and spring tension washer on the trigger and frame assembly of your M240 machine gun can cause the washer to wear out.

The washer can lose tension, or the serrated sides can wear smooth. Then the nut can back off.

If this happens, the whole assembly starts to come apart. It could even fall apart during firing.

What to do? Keep an eye on the washer and tighten the nut with an adjustable wrench before and after firing. Use wrench, NSN 5120-00-264-3796, from your BII.

If the nut keeps loosening, let your armorer know. He can replace the washer with a new one, NSN 5310-00-595-7237. It replaces the other washer in TM 9-1005-313-23P (1 Apr 83).

## Accessory Storage Change

PS 364 told you M1 tank turret mechs to keep some parts of your M240 MG when you prepare it for turn-in to support.

There's been a change in what you turn in and what you keep.

After you remove the loader's accessory assembly (Fig 85, TM 9-2350-255-20P-2, PN 12273961), or coax accessory assembly (Fig 7, Item 26, PN 12274063), reinstall the grips and charger cable guide bracket.

Turn in the MG with the grips and guide bracket to your support. Tag the accessory assembly and turn it in to your PLL clerk or armorer, depending on how your unit's set up. It stays in locked storage.

Your new M240 comes with grips and guide bracket installed. Go to your PLL clerk or unit armorer and get the tagged accessory assembly you turned in earlier. Remove the tags.

Remove the grips and guide bracket from your new machine gun, tag them, and turn them in to your PLL clerk or armorer. Then, install the loader's or coax accessory assembly on the machine gun and you're ready to go.

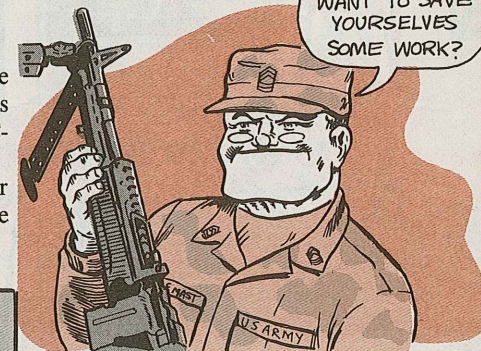
## M60 Shaft Pin Pointer

You can if any of the cartridge guide shafts on your M60 machine gun covers are secured by cotter pins instead of C-rings.

Cotter pins must be installed right or they'll work loose and interfere with the cover assembly.

Cotter pin flush?

Ends around shaft?



To keep the pins snug, do this:

- Push the pin all the way in until the head is flush against the guide shaft. Be sure it doesn't stick out beyond the edge of the cover.
- Wrap the ends of the pin tightly around the other side of the guide shaft.

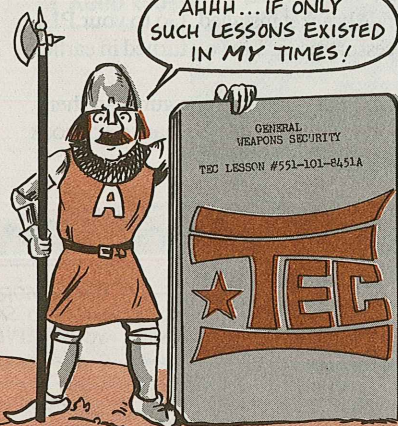


## Armorer Field Training

Unit armorers who haven't received the Army Quartermaster School training package can get information on it from the US Army Training Support Center, Fort Eustis, VA.

The "Exportable Unit Armorer Training Package" covers the M16A1, M203, M3A1, M2, M60 and M1911A1 weapons and the M54 Dragon missile trainer. The package is in TEC Lesson format.

AHHH... IF ONLY SUCH LESSONS EXISTED IN MY TIMES!



TEC Lessons Available (All are in 551-101-series)	
Weapons	Series
M16A1	551-101-8351A thru 8356A
M203	-8358A thru 8363A
M1911A1	-8365A thru 8370A
M3A1	-8372A thru 8377A
M60	-8379A thru 8384A
.50-Cal	-8386A thru 8391A
M54 LET	-8393A thru 8398A
Gen. Security	-8451A thru 8457A

Job aids, and maintenance and security information are included.

GTA's (Graphic Training Aids) in the 10-8 series also are available from your local TASC (Training and Audio-Visual Support Center).

For "package" info, your unit can call AUTOVON 927-4603, 927-3728 or write:

Commander  
US Army Training Support Center  
ATTN: ATIC-EPT-T  
Fort Eustis, VA 23604

## 4.2-in Mortar Scale NSN's

Dear Half-Mast,  
I need parts for the protractor fan scale, NSN 1220-00-999-5473, used with the 4.2-in mortars in my platoon. I can't find a parts pub.

SFC G.R.B.

I'LL JUST STICK IN THIS PIN... AND I'M IN BUSINESS!

Dear Sergeant G.R.B.,

Parts for that scale are well hidden. The scale itself (scale, plotting, aluminum) goes by NSN 6675-00-283-0018 and is in CTA 50-970. The cursor is NSN 5355-00-859-7771 and is authorized by App A, CTA 50-970.

Pin, cemented (vertex), is a repair part, NSN 1220-00-003-8415. It is not yet in a parts manual.

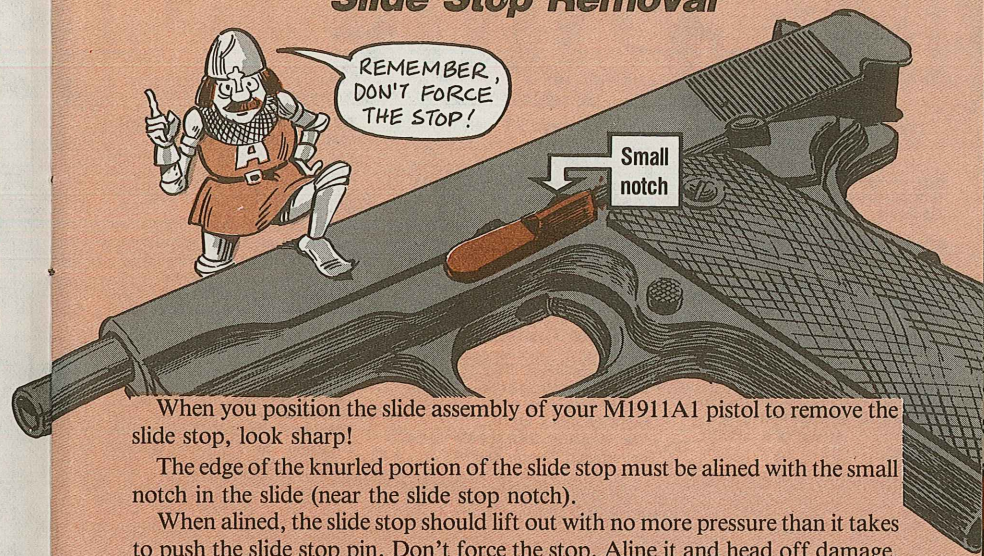
Half Mast

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## Slide Stop Removal



REMEMBER, DON'T FORCE THE STOP!



When you position the slide assembly of your M1911A1 pistol to remove the slide stop, look sharp!

The edge of the knurled portion of the slide stop must be aligned with the small notch in the slide (near the slide stop notch).

When aligned, the slide stop should lift out with no more pressure than it takes to push the slide stop pin. Don't force the stop. Align it and head off damage.

## Mortar Got the Bends?

GO EASY WITH THE BIPOD!



The shouldered stud rod in the M23A1 bipod assembly of your M29A1 mortar can go on a bender about as quickly as you can hoist a stein to your lips.

Like, it'll bend if you bang something against the yoke assembly. It'll bend if you travel with the bipod extended.

When the rod bends, the shock absorber binds...and that can make more damage.

The idea is to go easy with the bipod. Rough handling damages the sight dovetail, the elevation and traversing handles, the bipod legs and the shock absorber clevis.

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# Pubs

This is a selected list of recent pubs of interest to organizational maintenance personnel. This list was made from a computer printout provided by The Adjutant General.

## Miscellaneous

**C2, AR 190-11** Jul Physical security of arms, ammunition and explosives  
**FM 1-302** Sep ALSE  
**LO 5-3810-290-12** Nov Crane, Model 446A  
**LO 9-2320-283-12** Jun Truck, tractor, M915A1  
**LO 9-2320-289-12** Jul Truck 1 1/4-ton, M1008, M1008A1, M1028; 3/4-ton, M1009; ambulance, M1010; chassis, M1031

## Technical Manuals

**TM 5-6675-317-14** Jun Topographic support system compilation section, Model ADC-TSS-5  
**TM 9-1425-1525-24P** Jun Improved HAWK  
**TM 9-1450-585-10** Sep M730 Chaparral carrier  
**TM 9-1450-585-20P** Jun M730 and M730A1 Chaparral carrier  
**TM 9-2320-289-10** Apr Truck, 1 1/4-ton, M1008, M1008A1, M1028; 3/4-ton, M1009; ambulance, M1010; chassis, M1031  
**TM 9-2320-289-12** Aug Trailer, 3/4-ton, M101, M101A1, M101A2, M116, M116A1, M116A2  
**TM 9-2330-366-14&P** Jun Semitrailer, 12-ton, XM974

**TM 9-2350-257-20P-1** Aug Tank, M60A1 RISE (Passive)  
**TM 9-3431-256-14&P** Jun Welding machines (Hobart Models RCC-610, 27, H4 and GA-600)  
**TM 10-7360-204-13&P** Jul Range outfit, Model M59; burner unit, gasoline Model M2; Model M2A, Model M2 w/safety device  
**TM 11-5815-238-20** Sep AN/GGC-3, -3A, AN/GGC-53, and -53A TT sets; TT-76, -76A, -76B, -76C, TT-699, -699A, -699B and -699C TT reperforator transmitters  
**TM 11-5895-453-24P-1** Aug S-390A shelter  
**TM 11-6130-227-20P-1** Jun Charger, battery, PP-1660A/G and PP-1660B/G

## AUDIO-VISUAL STUFF

Available at battalion or post Learning Center

### TV Tapes

**TVT 6-116** Start/stop procedures AN/TPS-25 radar  
**TVT 6-117** AN/TPS-25 radar orientation  
**TVT 9-60** M1 tank: Fire control system  
**TVT 9-61** M1 tank: Turret electrical system  
**TVT 9-62** M1 tank: Turret hydraulic system  
**TVT 17-125** M1 tank: Zero the M240 coaxial MG

### TEC Lessons

**2C-011-5001-F/UH-60A**, Part I  
**2C-011-5005-F/UH-60A**, Part II  
**020-171-5736-A** Remove install searchlight on M60 series/M48A5 tank

**020-171-5738-A** Operate and troubleshoot the driver's night vision device, AN/VVS-2 periscope  
**030-051-6425-J** Bridge erection boats  
**242-301-6704-A** Interpret FTI on SLAR  
**242-301-6705-A** Detect MTI on SLAR  
**242-301-6706-A** Plot SLAR imagery  
**431-093-7366-F** How to recover buried ordnance  
**510-121-7365-A** Using DA Pam 310-1, 310-99  
**610-091-6020-A** Supply management for the motor sergeant

**610-091-6631-A** Perform semi-annual PMCS, 2 1/2-ton truck  
**610-091-6701-A** TOW disabled vehicle with a 5-ton wrecker (M816 model)  
**662-091-7745-A** Troubleshoot load bank malfunction; 60 KW DED generator set  
**730-051-8402-F** Clearing a sidehill excavation site, Part I  
**730-051-8404-F** Clearing a sidehill excavation site, Part III  
**730-051-8410-F** Medium and heavy pull winching  
**730-051-8412-F** Ripper teeth placement and ripping root procedures  
**902-011-5821-F** Using tactical field lighting systems

## Need GSA Catalog?

GSA Supply Catalog contains supply info, descriptions and pictures for many office and industrial products, tools, and furniture items available thru normal supply channels.

You can get the catalog by using GSA Form 457, Publications Mailing List Applications. Request the form from:

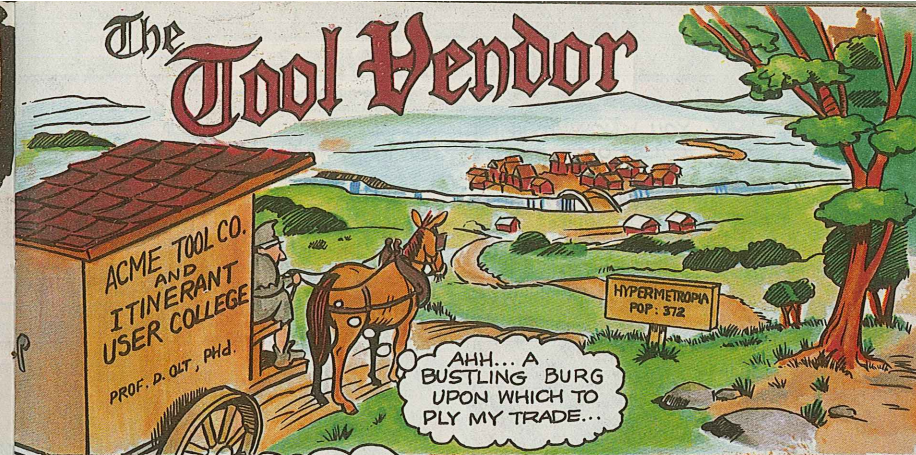
General Services Administration (8BRC)  
 Bldg 41, Denver Federal Center  
 Denver, CO 80225

Or, you can call FTS 234-4195 or Commercial 303 234-4195.

You'll automatically get new pubs and any changes when you send in the form.

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# The Tool Vendor



29



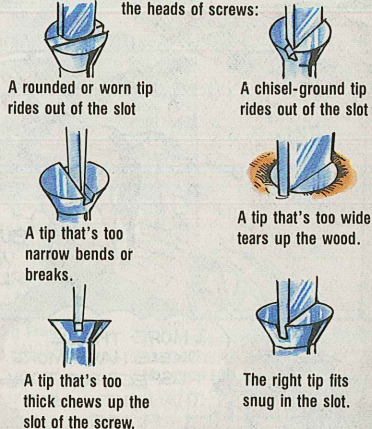
# SCREWDRIVERS

LEMMEE SEE THIS SCRULOX RATCHET...

YOU KNOW YOUR TOOLS, OK.... Do YOU KNOW THE COMMON ERRORS MADE WITH SCREWDRIVERS?



Mismatching screwdrivers to the heads of screws:



A rounded or worn tip rides out of the slot

A chisel-ground tip rides out of the slot

A tip that's too narrow bends or breaks.

A tip that's too wide tears up the wood.

A tip that's too thick chews up the slot of the screw.

The right tip fits snug in the slot.

Using screwdrivers as chisels, punches, pry bars and scrapers



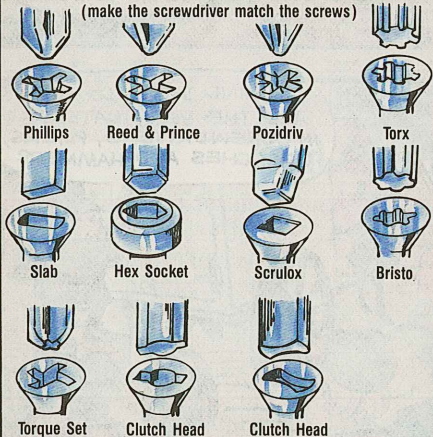
Using screwdrivers near a live wire or for electrical testing



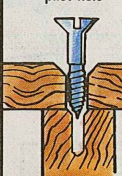
Using screwdrivers with worn or broken handles



Using flat-tipped screwdrivers on recessed slot screws (make the screwdriver match the screws)



Driving screws into material without making a pilot hole



Starting screws in hard to reach places without a screw holding tool.



Using pliers on screwdriver handles for more holding power.



GAAAAA

GREASY HANDS MAY NOT HURT A TOOL — BUT THEY CAN HURT A FOOL!



# WRENCHES / PLIERS

ALL KINDS... TAKE THIS BOX-END WRENCH FOR EXAMPLE... BUT DON'T DO ANYTHING I WOULDN'T DO LIKE.



WOT KINDA WRENCHES DO YOU CARRY?



Using extensions—cheater bars—for more leverage

Mismatching wrench openings and the fasteners

Using the wrong kind of wrenches on fasteners



Using hammers on box-end or open-end wrenches



Using pipe wrenches for bending, raising or lifting pipe



Using the wrong kind of sockets with wrenches...like using hand sockets on power drive or impact wrenches

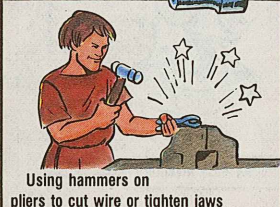


Over torquing

Under torquing

Using open-end wrenches to break torque or loosen nuts

Using adjustable wrenches to free nuts



Using hammers on pliers to cut wire or tighten jaws

Using torque wrenches as hammers or pry bars

Using pipe—or cheater bars—for more leverage on locking pliers

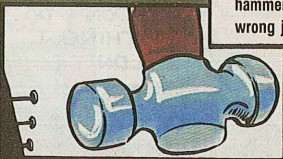
... ANOTHER THING I WOULDN'T DO IS FORGET MY SAFETY GOGGLES... AS YOU CAN SEE THEY MAY BE THE MOST IMPORTANT EQUIPMENT IN YOUR TOOL BOX





# HAMMERS

POUND FOR POUND, HAMMERS TAKE MORE OF A BEATING THAN OTHER TOOLS! JUST LOOK AT THESE **ABUSES!**



Using the wrong hammer for the wrong job



Hitting one hammer with another



Using broken, chipped, mush-roomed or dented hammers



Using soft-faced hammers to drive nails

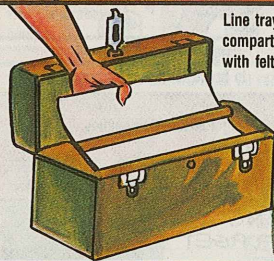


Striking chisels that're bent, dented, cracked, chipped or mush-roomed

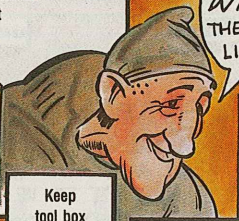


# TOOL CONTROL

Line tray and compartments with felt



Keep tool box clean and dry

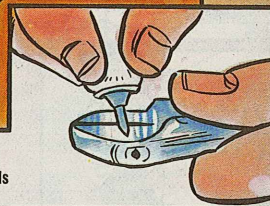


YOU WON'T USE THE **WRONG** TOOL IF YOU HAVE THE **RIGHT** ONE HANDY— LIKE IN YOUR TOOL BOX!

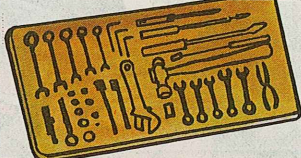
Keep tool box locked when not in sight



Use etcher to mark tools



Use tool silhouette mat for easy inventory



Get a tool layout mat for your General Mechanics Automotive tool kit (NSN 5180-00-177-7033) with NSN 9690-01-110-7611.



... AND THERE YOU HAVE IT! NOW, WHO WANTS TO PLACE AN ORDER?

I WILL!

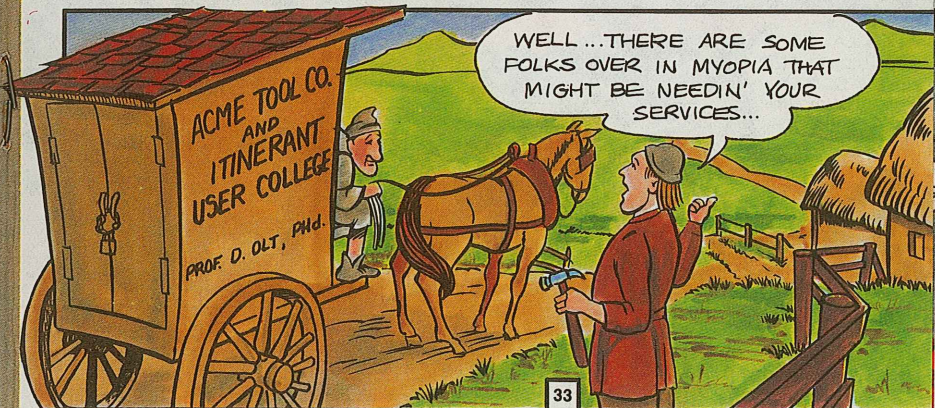
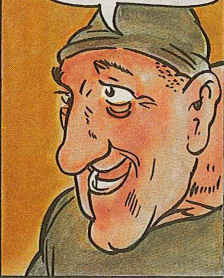


BEEN NEEDIN' ONE O' THESE SINCE THE HEAD O' MY OLD HAMMER FLEW OFF.

... INTO THE LAKE!

SPLOOSH!

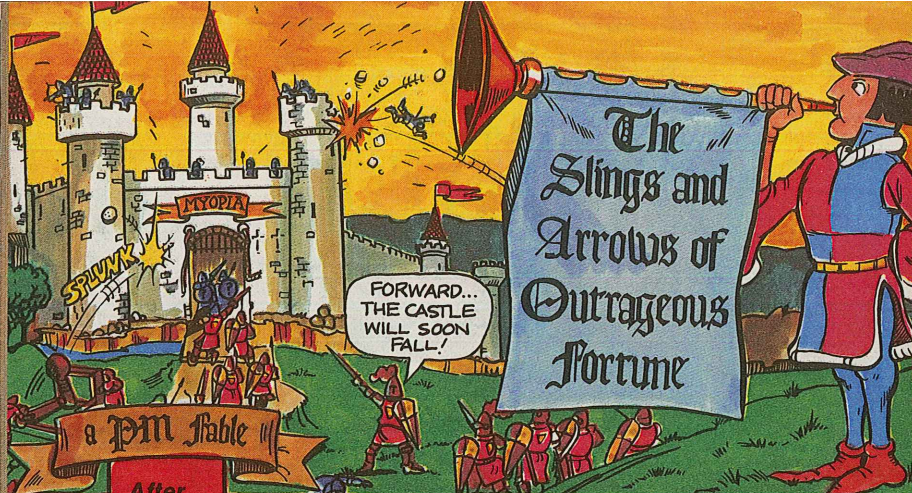
HOW 'BOUT FOR YOUR FRIENDS? ... THEY MAKE GREAT GIFTS!



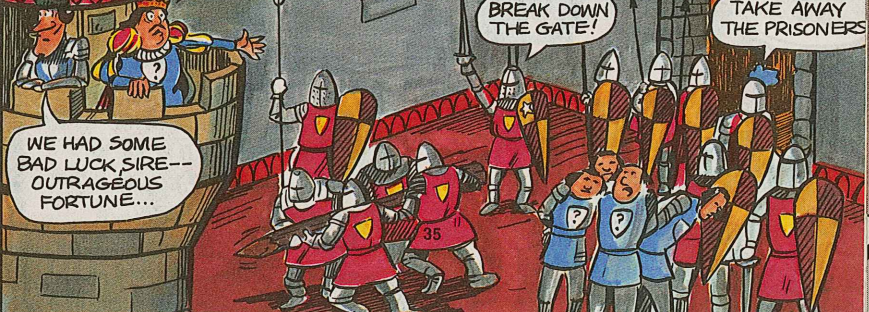
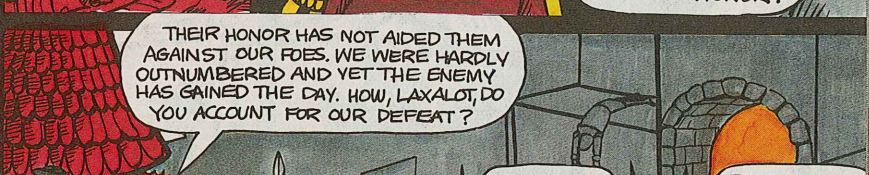
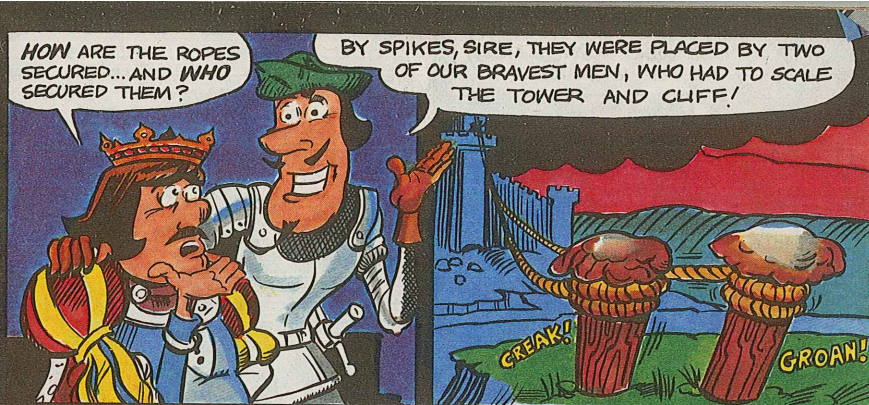
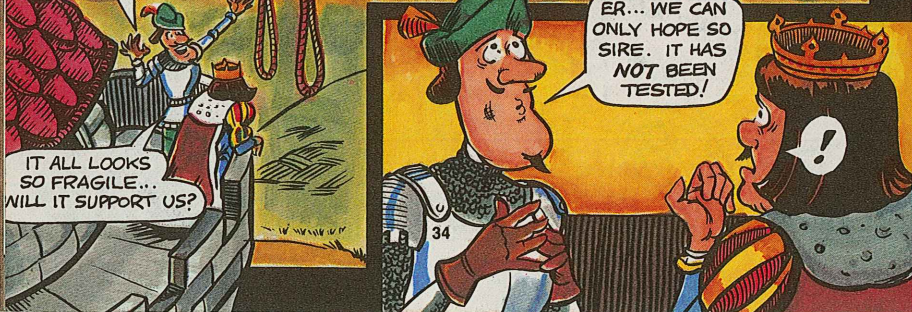
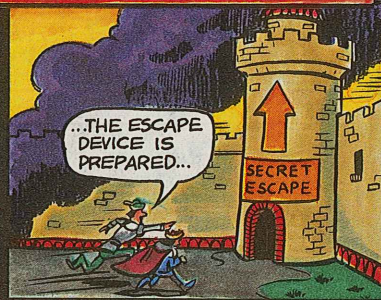
WELL ... THERE ARE SOME FOLKS OVER IN MYOPIA THAT MIGHT BE NEEDIN' YOUR SERVICES...

ACME TOOL CO. AND ITINERANT USER COLLEGE  
PROF. D. OLT, PH.D.

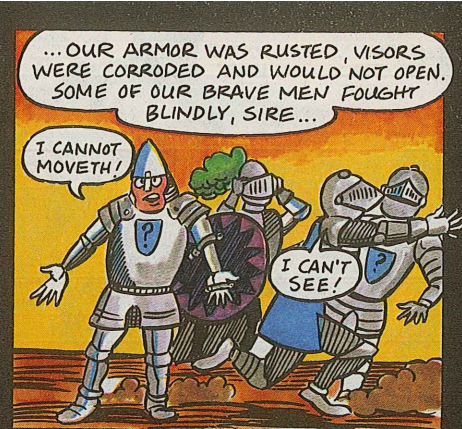
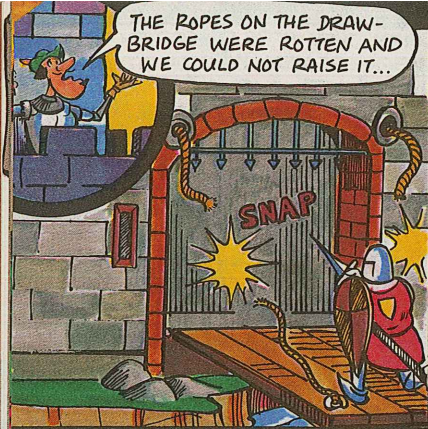




After an extended siege of over two hours, King Idyll of Myopia watches in amazement as his knights are overwhelmed by the onslaught of the enemy. His chief assistant approaches...

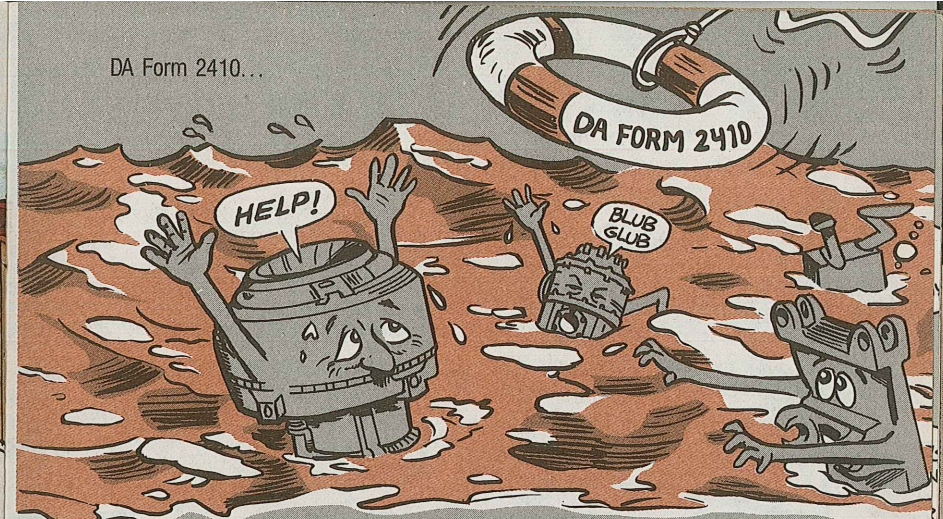






Thus history records the first instance of an assistant in a sling. The lack of supervised preventive maintenance lost the kingdom!

DA Form 2410...



## A Component Lifesaver

Throw your aircraft components a life preserver — that is, a DA Form 2410, Component Removal and Repair Overhaul Record! It could save them from unnecessary overhauls, or even being trashed!

If your bird's components are listed in TB 55-1500-307-24, Aircraft Components Requiring Maintenance Management and Historical Data, they go nowhere without a DA Form 2410.

If you send one of those components or parts with no DA Form 2410, it's grounded for sure! The contractor or depot people are left guessing on the item's history and condition.

That gives 'em 2 choices: Overhaul the component or part (if that's possible) or condemn it. Either way, that item's out of the system for quite a while — maybe forever!

Bird parts and components aren't that plentiful! But too many items still go in for repair with no form — especially on the UH-60A Black Hawk.

Make sure a DA Form 2410 goes with the equipment or component on a lateral transfer, too.

Save your components from an unnecessary overhaul or early death. Always send a completed DA Form 2410 with the parts and components that need it.

## Send the Oil Valve

Some Cobra transmissions have been showing up for overhaul without the oil valve, NSN 1615-00-570-9765. Be sure to send it along with the transmission. Until enough oil valves are returned to the depot, your overhauled transmission may come without the valve.



## Keep 6 Flying Months

Dear Windy,  
We keep a 6-month file of DA Forms 2408-13. But my Quality Control people disagree with me on when to toss forms. I say you throw them out as soon as they become 7 months old. My QC people say I keep them for the past 6 months the bird flew in. Who's right?  
SFC T.A.C.

Dear Sergeant T.A.C.,  
Your QC people are right. Para 10-37d(4) of TM 38-750 tells you to keep a 6-month file of DA Forms 2408-13. As each new month is added, destroy the one that is 7 months old.  
But, if the bird does not fly during a month, do not count that month. Drop off the seventh month only after the bird flies again.

BUT HOLD OFF ON TOSSEING THE SEVENTH MONTH FORMS ON BLACK HAWKS. SEND THOSE FORMS TO...

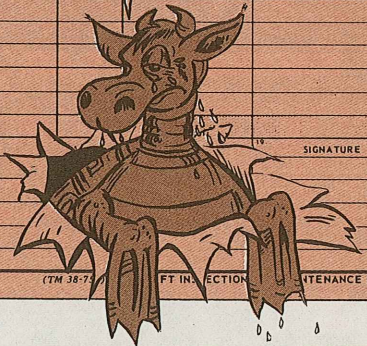
Commander  
Corpus Cristi Army Depot  
ATTN: DRSTS-MRR  
STOP 55  
Corpus Cristi, TX 78419



STATUS TODAY		AIRCRAFT TIME		NEXT INSPECTION DUE		HOT STARTS		LANDINGS		OTHER	
AIRCRAFT	SELECT	AREA	MENT	OTHER	TIME TO DATE	TESTED NO.	NO. 1 ENGINE	NO. 2 ENGINE	A	B	C
1	4										
2	5										
3	6										
11	<b>MOC Dates</b>		P.E. NO.		PREVIOUS		TODAY		TOTAL		
12	TIME		OTHER		OXYGEN (PSI)		ANCI FLI		GCA		STATION
13	TOTAL		OXYGEN (PSI)		ANCI FLI		GCA		STATION		
14	TOTAL		OXYGEN (PSI)		ANCI FLI		GCA		STATION		
15	TOTAL		OXYGEN (PSI)		ANCI FLI		GCA		STATION		
16	TOTAL		OXYGEN (PSI)		ANCI FLI		GCA		STATION		
17	TOTAL		OXYGEN (PSI)		ANCI FLI		GCA		STATION		
18	TOTAL		OXYGEN (PSI)		ANCI FLI		GCA		STATION		
19	TOTAL		OXYGEN (PSI)		ANCI FLI		GCA		STATION		
20	TOTAL		OXYGEN (PSI)		ANCI FLI		GCA		STATION		
21	TOTAL		OXYGEN (PSI)		ANCI FLI		GCA		STATION		
22	TOTAL		OXYGEN (PSI)		ANCI FLI		GCA		STATION		
23	TOTAL		OXYGEN (PSI)		ANCI FLI		GCA		STATION		
24	TOTAL		OXYGEN (PSI)		ANCI FLI		GCA		STATION		
25	TOTAL		OXYGEN (PSI)		ANCI FLI		GCA		STATION		
26	TOTAL		OXYGEN (PSI)		ANCI FLI		GCA		STATION		
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31	TOTAL		OXYGEN (PSI)		ANCI FLI		GCA		STATION		
32	TOTAL		OXYGEN (PSI)		ANCI FLI		GCA		STATION		
33	TOTAL		OXYGEN (PSI)		ANCI FLI		GCA		STATION		
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36	TOTAL		OXYGEN (PSI)		ANCI FLI		GCA		STATION		
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38	TOTAL		OXYGEN (PSI)		ANCI FLI		GCA		STATION		
39	TOTAL		OXYGEN (PSI)		ANCI FLI		GCA		STATION		
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42	TOTAL		OXYGEN (PSI)		ANCI FLI		GCA		STATION		
43	TOTAL		OXYGEN (PSI)		ANCI FLI		GCA		STATION		
44	TOTAL		OXYGEN (PSI)		ANCI FLI		GCA		STATION		
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53	TOTAL		OXYGEN (PSI)		ANCI FLI		GCA		STATION		
54	TOTAL		OXYGEN (PSI)		ANCI FLI		GCA		STATION		
55	TOTAL		OXYGEN (PSI)		ANCI FLI		GCA		STATION		
56	TOTAL		OXYGEN (PSI)		ANCI FLI		GCA		STATION		
57	TOTAL		OXYGEN (PSI)		ANCI FLI		GCA		STATION		
58	TOTAL		OXYGEN (PSI)		ANCI FLI		GCA		STATION		
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60	TOTAL		OXYGEN (PSI)		ANCI FLI		GCA		STATION		
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62	TOTAL		OXYGEN (PSI)		ANCI FLI		GCA		STATION		
63	TOTAL		OXYGEN (PSI)		ANCI FLI		GCA		STATION		
64	TOTAL		OXYGEN (PSI)		ANCI FLI		GCA		STATION		
65	TOTAL		OXYGEN (PSI)		ANCI FLI		GCA		STATION		
66	TOTAL		OXYGEN (PSI)		ANCI FLI		GCA		STATION		
67	TOTAL		OXYGEN (PSI)		ANCI FLI		GCA		STATION		
68	TOTAL		OXYGEN (PSI)		ANCI FLI		GCA		STATION		
69	TOTAL		OXYGEN (PSI)		ANCI FLI		GCA		STATION		
70	TOTAL		OXYGEN (PSI)		ANCI FLI		GCA		STATION		
71	TOTAL		OXYGEN (PSI)		ANCI FLI		GCA		STATION		
72	TOTAL		OXYGEN (PSI)		ANCI FLI		GCA		STATION		
73	TOTAL		OXYGEN (PSI)		ANCI FLI		GCA		STATION		
74	TOTAL		OXYGEN (PSI)		ANCI FLI		GCA		STATION		
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77	TOTAL		OXYGEN (PSI)		ANCI FLI		GCA		STATION		
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79	TOTAL		OXYGEN (PSI)		ANCI FLI		GCA		STATION		
80	TOTAL		OXYGEN (PSI)		ANCI FLI		GCA		STATION		
81	TOTAL		OXYGEN (PSI)		ANCI FLI		GCA		STATION		
82	TOTAL		OXYGEN (PSI)		ANCI FLI		GCA		STATION		
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84	TOTAL		OXYGEN (PSI)		ANCI FLI		GCA		STATION		
85	TOTAL		OXYGEN (PSI)		ANCI FLI		GCA		STATION		
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87	TOTAL		OXYGEN (PSI)		ANCI FLI		GCA		STATION		
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89	TOTAL		OXYGEN (PSI)		ANCI FLI		GCA		STATION		
90	TOTAL		OXYGEN (PSI)		ANCI FLI		GCA		STATION		
91	TOTAL		OXYGEN (PSI)		ANCI FLI		GCA		STATION		
92	TOTAL		OXYGEN (PSI)		ANCI FLI		GCA		STATION		
93	TOTAL		OXYGEN (PSI)		ANCI FLI		GCA		STATION		
94	TOTAL		OXYGEN (PSI)		ANCI FLI		GCA		STATION		
95	TOTAL		OXYGEN (PSI)		ANCI FLI		GCA		STATION		
96	TOTAL		OXYGEN (PSI)		ANCI FLI		GCA		STATION		
97	TOTAL		OXYGEN (PSI)		ANCI FLI		GCA		STATION		
98	TOTAL		OXYGEN (PSI)		ANCI FLI		GCA		STATION		
99	TOTAL		OXYGEN (PSI)		ANCI FLI		GCA		STATION		
100	TOTAL		OXYGEN (PSI)		ANCI FLI		GCA		STATION		

TM 55-1500-328-25 seems to have 2 ways of signing off on a Maintenance Operational Check (MOC) — one with and one without a date. But not so! Para 3-8a is right. Para 3-8b(3) is wrong. You need a date in Block 18 for all MOC entries—even if you can't pull the check when, or right after, you complete the work.

BOO HOO...!  
I'M NOT A MOC DATE.  
I'M A MOCK TURTLE!

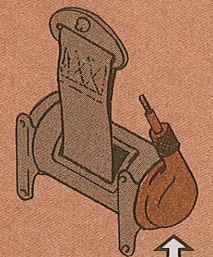


THE MOC DATE GOES IN BLOCK 18.



## A Reel Solution

Aircraft shoulder harness inertia reel, NSN 1680-00-775-4182, can now be repaired by support. When you remove a faulty reel, forget the "nonrecoverable" code in the AH-1, UH-1, CH-54, and OH-58 parts pubs. TSARCOM Supply Letter 33-82 says to ship the reel to:



Inertia Reel

Sharpe Army Depot  
ATTN: RIC AQ5, W62G2T  
Lathrop, CA 95330



FORGET THE "NONRECOVERABLE" CODE!

## New Window Plastic

The easily damaged polycarbonate used in the OH-58 crew door windows is being phased out in favor of scratch-resistant acrylic plastic. Window stock numbers in Fig 8 of TM 55-1520-228-23P will remain the same. Meanwhile, no more EIR's — please!

## Share It!

If you have recovered an aircraft with recovery kit, NSN 1670-00-264-8941, share your experience — good and bad — to improve operations. Use the format in Appendix C of FM 55-413, on aerial recovery, and send it to:

Commandant  
US Army Transportation School  
ATTN: ATSP-CD-MS/ATSP-TD-TL  
Fort Eustis, VA 23604

## Reuse the Containers

The cost of metal containers for shipping aircraft components has sky-rocketed, so never scrap them. Reuse the plastic liners, too. You can repair unserviceable containers by following the info in TB 55-8100-200-24.

## UH-1D, H Antenna

The NSN for the AS-1703 antenna is TM 11-1520-210-20P has a slipped digit. It should be NSN 5985-00-082-3991.

## U-21 Relief Tube

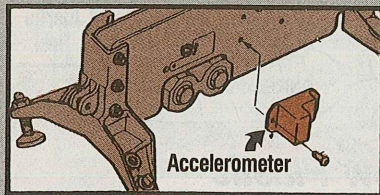
NSN 4720-00-540-3644 gets the bulk hose for the U21-series aircraft relief tubing. You'll need 66 1/2 inches of this 3/8-in synthetic rubber hose.



## Wasting Big Bucks

That's right. Some Cobra mechs are wasting \$800 each time they bushwhack an accelerometer when they take it off the outboard ejector rack.

Item 7, Fig 120, TM 55-1520-236-23P-1 is an intensively managed



repairable item ... hard to come by. But some accelerometers — because

of careless handling—are non-repairable when they arrive at repair points.

For instance, accelerometers are received with:

- Back plates—and glass sealed containers — pried loose from their housing. This allows the accelerometers to corrode inside.
- Terminal pins broken.
- Parts missing from inside the unit.
- Dents and nicks in the housing.
- Torquers overstressed.

Take care when you take off the accelerometer package and ship it. Careless handling wastes your money!

## Cordless Soldering Iron

Dear Windy,

We're having no luck finding a battery-powered soldering iron in the supply system.

The iron's needed for fixing electrical and electronic components on our aircraft parked on the flight line.

Can you help with an NSN and authority?

Mr. D. C.

Dear Mr. D. C.,

NSN 3439-01-045-1817 gets a cordless, electric soldering iron with rechargeable nickel-cadmium batteries.

Use Appendix A, CTA 50-970 as your authority.

Windy



## Shackle Hackle?

You can't secure your OH-58 for shipment with the tiedown ring listed on Page 2-18 of TM 55-1500-338-S. That's the wrong item. You want shackle, NSN 4030-00-072-1072.

## Aircraft O-Rings

O-rings used in aircraft maintenance have an indefinite shelf life, so ignore the expiration date stamped on the package.

Always perform a serviceability inspection before using one, tho. If it's cut, nicked, brittle or flawed, get rid of it. No need taking your chances on a bum O-ring.



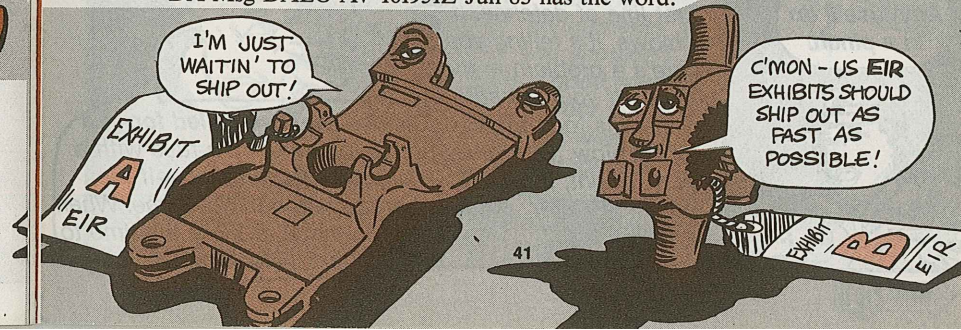
## Expedite EIR Exhibits

If you have been directed to ship an aircraft EIR exhibit for teardown and analysis, move it smartly! Use the highest shipping priority possible, and ship it by traceable means. The quicker you act, the quicker TSARCOM can recommend a fix and the quicker you'll get a copy of the teardown analysis that tells you what caused the component failure. Your check action may stop a potential disaster.

Doublecheck to be sure you have good photographs (if required) and that the exhibit is protected and packaged right so it'll reach its destination in good shape.

If you don't get disposition instructions for your exhibit within 10 days (for AIMI equipment) or 25 days (any other equipment) turn it into supply.

DA Msg DALO-AV 101951Z Jun 83 has the word.





# Mythed-Up PM?

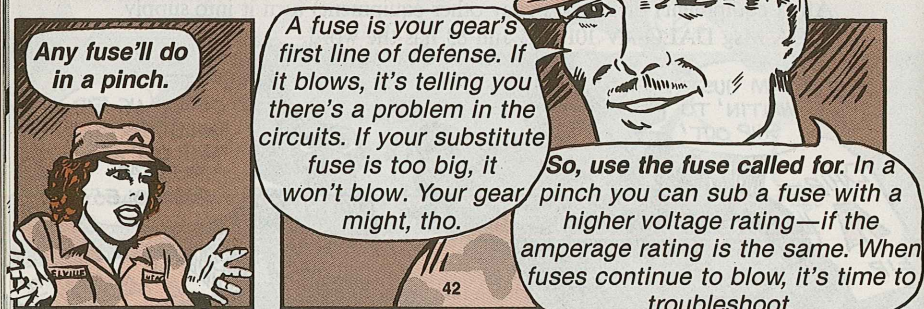
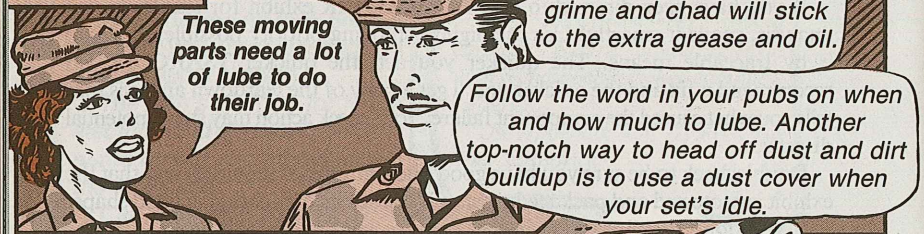


**Teletypewriter Myth No 1:** If a little is good, more must be better.

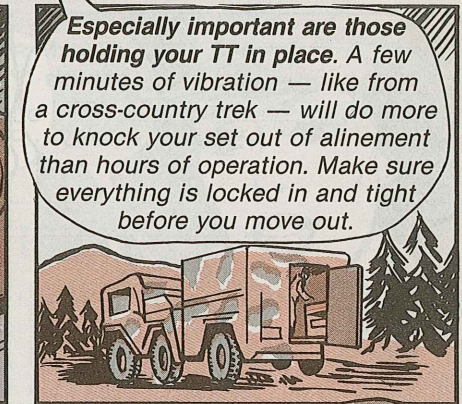
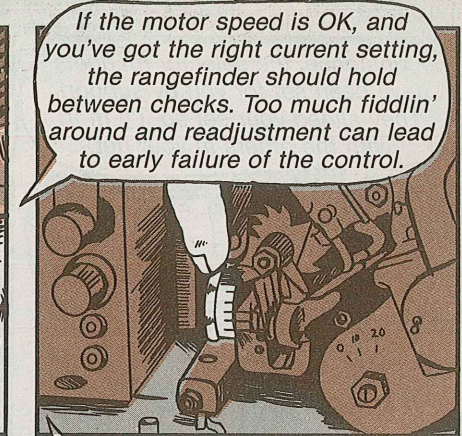
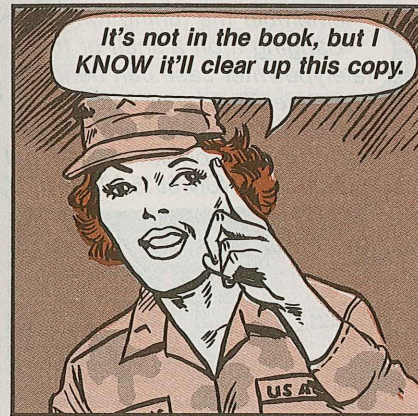
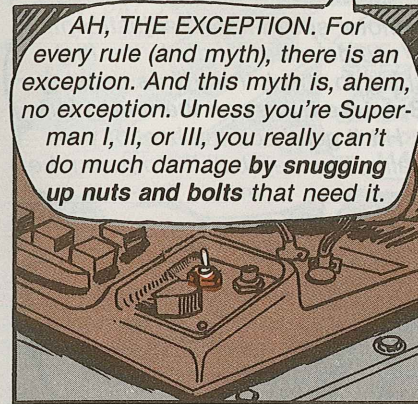
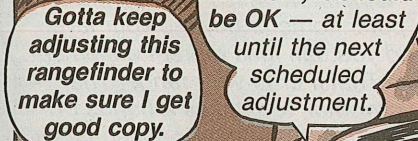
**Teletypewriter Myth No 2:** If you fiddle with this, tap that and pry these, you'll get first-rate copy.

If you put stock in either of these, you're in for some (message) traffic jams.

## Myth No 1: More is Better



## Myth No 2: Fix By Fiddling





F'rinstance, the selector magnets have been set for you by support. They alined your set so it'll fit in with the others in your net.



Try to "improve" their handiwork, and you'll louse up that alinement. Mess with the bias potentiometer beyond your level and you can lose current alinement.

That'll drop your range. The governor, too, takes a hands off policy once the motor speed is set.



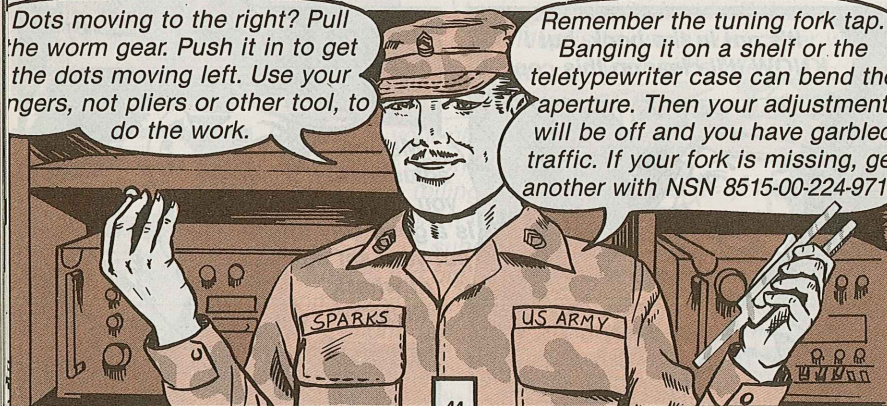
I'll just get this fork moving...



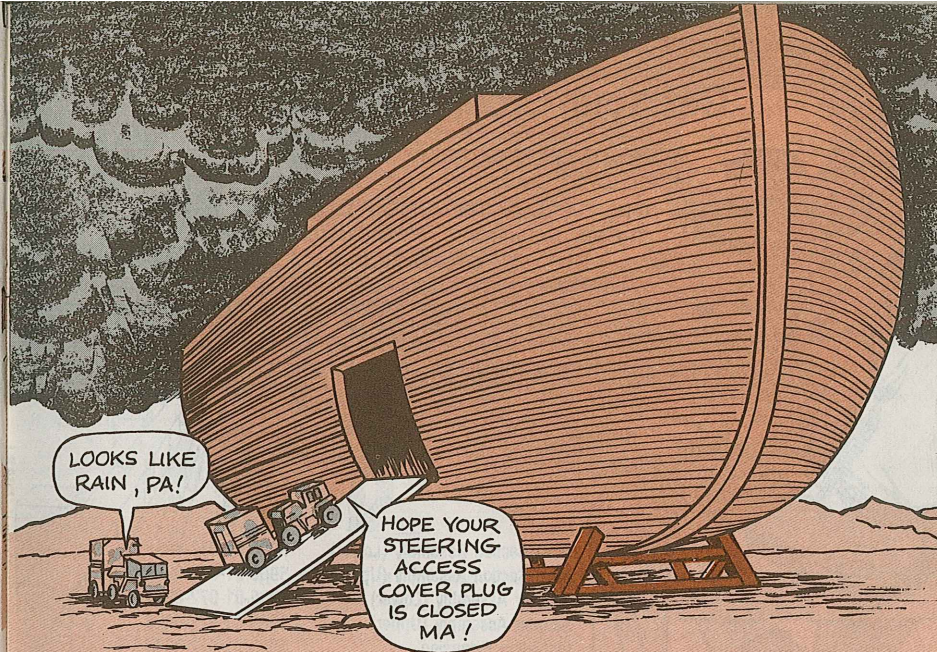
Motor speed is one adjustment you do make. And, it's the first thing to check if traffic is garbling. **But, take it easy on the tuning fork.** Hit it gently on the heel of your palm. Then, eyeball the dots on the motor.



Dots moving to the right? Pull the worm gear. Push it in to get the dots moving left. Use your fingers, not pliers or other tool, to do the work.



Remember the tuning fork tap. Banging it on a shelf or the teletypewriter case can bend the aperture. Then your adjustment will be off and you have garbled traffic. If your fork is missing, get another with NSN 8515-00-224-9717.



## Keep RATT High, Dry

Wondering how to keep water from drowning the radio teletypewriter set mounted on an M561 Gama Goat?

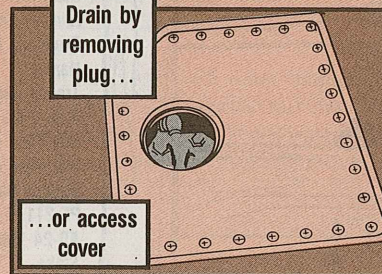
That watertight cargo area can fill right to the brim during the rainy season. If your shelter door seals are bad, or if the door or shelter floor drain plug is open, your rig fills up, too.

Drain away the pain by removing the steering access cover plug on the floor of the carrier.

If you need even more drainage, remove the cover. Just be sure to store it where you can find it when you need it—like to keep water out during fording.

Keep your rig's whip antenna base high, too. Locked in the down position,

Drain by removing plug...



it's an easy target for an engine cover being opened for PM. Either the cover or the handles smack the base head-on. 'Course, during the wet weather, put the base down again to head off corrosion damage.

You can get more good info on Goat PM from DA Pam 750-31. Have your pubs clerk order it for you.



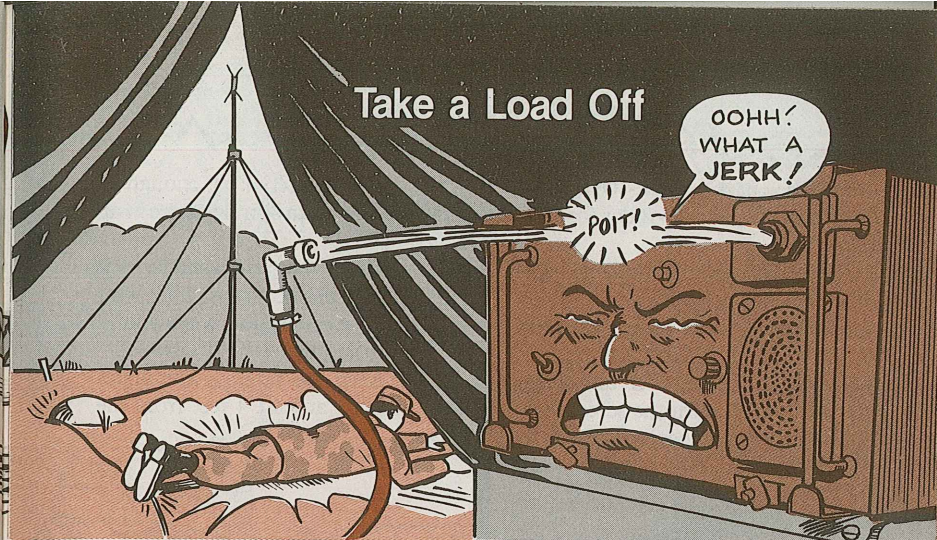
## Get Your Group Together

BEEN ON THE TRAIL OF THOSE ELUSIVE ANTENNA GROUP NSN'S? THE TRAIL ENDS HERE. CORRAL THESE NUMBERS FOR FUTURE REFERENCE:

Item	NSN
Mast Section Assembly (Lower)	5985-01-072-8065
Mast Section Assembly (Upper)	5985-01-072-8066
Adapter Assembly (Lower)	5985-01-072-8015
Adapter Assembly (Upper)	5985-01-072-8016
Insulating Extension	5985-01-072-4342
Guy Assembly (Red)	5985-01-072-4414
Guy Assembly (Blue)	5985-01-072-4415
RF Cable, CG-1889B/U	5995-01-085-1665
Stake Assembly	5985-01-073-6103
Adapter Connector	PN TRU-2064 FSCM 92180
Feedcone Assembly	5985-01-074-6684
Hammer	5120-00-203-4656
Transit Bag	5985-01-072-4339
Base Plate	5985-01-122-3959
Guy Plate (Blue)	4030-01-074-7881
Guy Plate (Red)	4030-01-072-8126
Mast & Base Assembly	5985-01-072-8018
PF-211/G Strain Relief	5975-01-072-4496
AB-24 Mast Section Stake	5820-00-240-3720
	3040-01-072-8017

FOR REPAIR OR MAINTENANCE OF YOUR MAST, SEE TM 11-5985-357-13 AND-23P

## Take a Load Off



How do you spell relief for an AN/VRC-12-series radio set when you're using your RC-292 or OE-254 antenna mast? Try W-D-1.

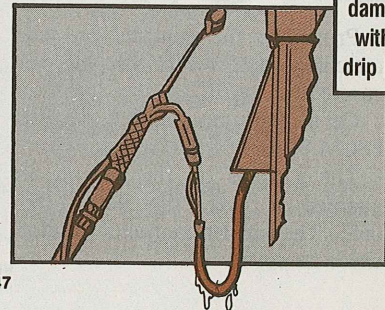
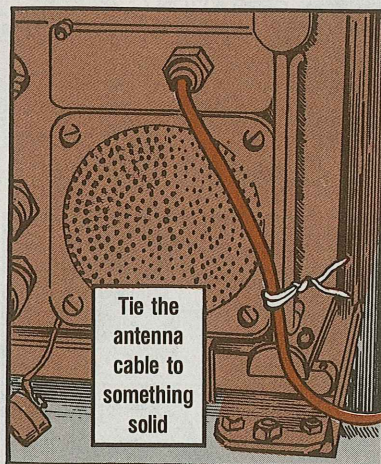
That short piece of field wire (or whatever else happens to be handy) can head off a load of downtime for broken ANT receptacles or cable connectors.

Just tie the CG-107 or CG-1889 RF

cable to something solid near the radio. That tie supports the cable's weight instead of the receptacle.

Another strain reliever is to tie those long cables to the mast itself. Your TM's say every 5 feet or so. If the TL-83 tape the TM pubs call for won't do the trick, substitute a low-temp tape, NSN 5970-00-419-4291.

Finally, head off water damage by putting a drip loop in the end that feeds your radio set. That keeps water from running down the cable and into your equipment.





## Watch the Screen

Hiding your AN/GRC-106 radio set, or similar sets, under a radar scattering screen?

Keep the garnish material from touching your antenna.

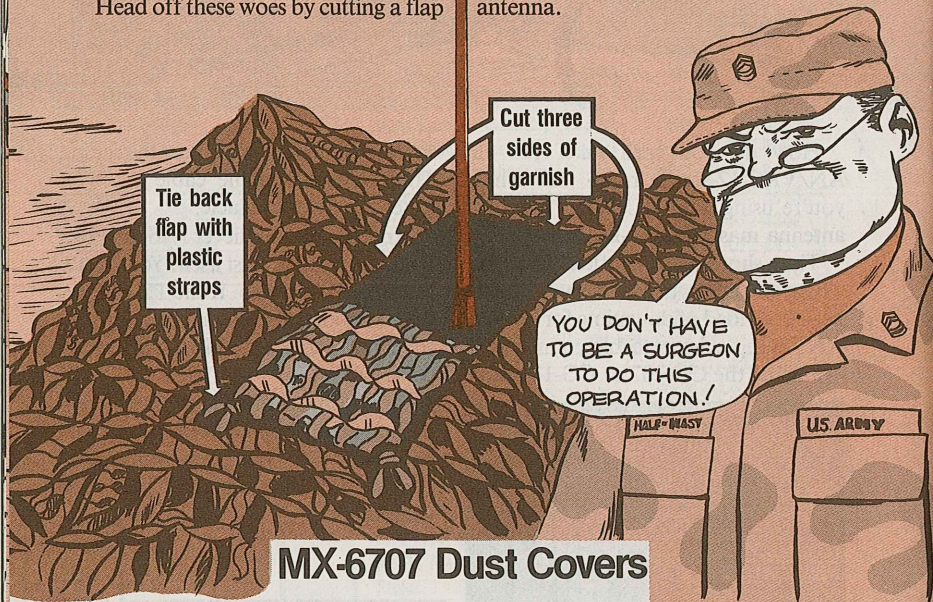
The screen's metal content can reflect radio RF output and damage your radio set. That high energy RF also creates enough heat to burn the screen.

Head off these woes by cutting a flap

in the garnish material big enough to give the antenna an 8-in clearance in all directions.

Cut 3 sides of the garnish and tie back the flap with plastic straps. That way, you can close up the hole when you're through, using the same straps.

Also, keep the screen's aluminum support poles at least 4 feet from the antenna.

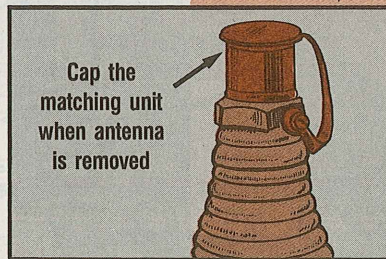


## MX-6707 Dust Covers

Protecting the contacts on your matching units means keeping 'em covered.

Get the top button contact cover with FSCM 80063 PN 911110-2.

The J2 pins on the bottom are guarded by cover, NSN 5985-01-091-0655. The smaller connector beside it needs no cover.



RESIST TEMPTATION,  
AND GET A GOOD  
RESISTOR TO HELP  
YOUR TRANSMISSION!



## Resist All Substitutes

Building a good field-expedient vertical half-rhombic antenna calls for a good resistor, not a dead BA-30 battery or a C-rat can full of sand and oil. (Unless that's all you can get.)

Plan ahead. If you can, lay in a supply of the 600-ohm, 2-watt resistors called for in TC 11-5, Know How to Repair and Fabricate Antennas.

Since 600-ohms isn't a standard resistor value, you have a choice. Get a 620-ohm, 2-watt with NSN 5905-00-407-6167. Or, wire 2 1200-ohm, 1-watt resistors in parallel. Get 'em with NSN 5905-00-369-6916.

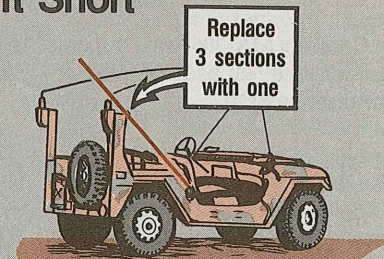
Then, just follow the directions in the TC. Put the resistor on the end nearest your receiving station. Remember that resistor wattage must be at least half of the radio's output wattage.

## Keep It Short

Looking for a shorter, cheaper, safer way to assemble your R-442 receiver antenna? Try a single AT-1095 antenna section, NSN 5820-00-856-2728.

It's the same section that tops off your AS-1729 antenna. The headshed has found it performs just as well as the current 3-section receiver antenna setup.

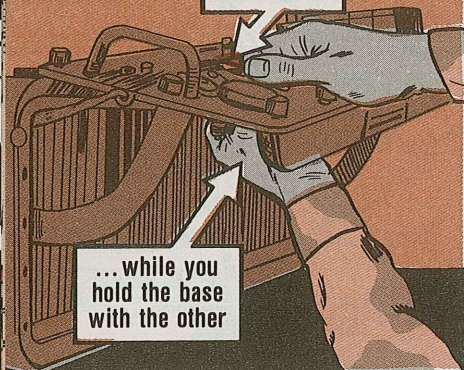
It's safer 'cause it's only half as tall and made of fiberglass, not aluminum. You still have to tie it down, tho. The change has been OK'd by the commo headshed and will be added to your AN/VRC-12-series radio TM's.





## Night Alarm Warning

Tighten the nut with one hand...



... while you hold the base with the other

Tightening the retaining nut on your SB-3614 switchboard's night alarm might cost you a cable.

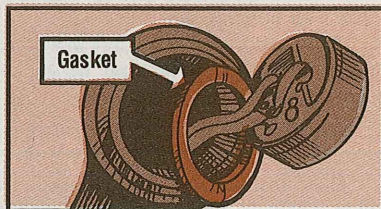
The alarm has a keyed base, but the notch on some switchboard front panels isn't big enough to catch it. So the more you turn the nut, the more you turn the base — and the more twist you put in the cable.

If you tear the cable, you not only lose your audible alarm, but other circuits as well.

Your best bet is to open the switchboard and hold the base while you tighten the nut.

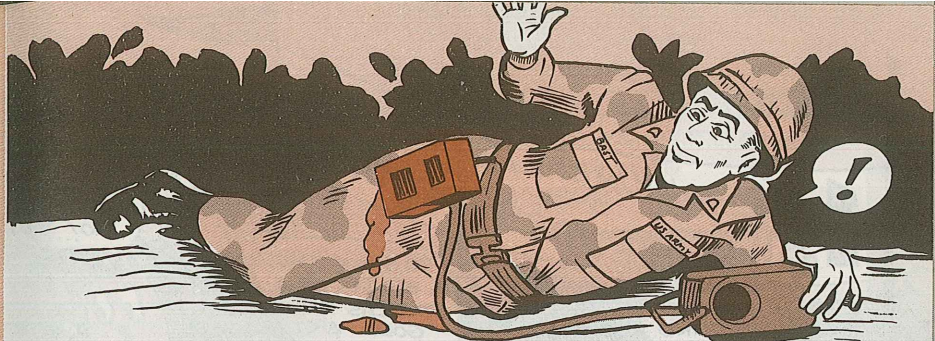
## TA-235 Gasket

No need to order a new TA-235 receiver element just 'cause the gasket's bad. You can keep your H-60 handset waterproof just by replacing the gasket, NSN 5330-00-842-3203.



## Dispense With It!

Once an MX-306 wire dispenser is empty, it's disposable. The headshed doesn't need 'em back for refill or reissue. Check in with your supply support for disposal SOP.



## Watch Leaky AN/PAS-7's

Lying down on the job can be hazardous to your infrared viewer's health. Yours, too.

When you get in a prone position, the rechargeable battery on your belt gets in one, too. If yours has been overfilled, electrolyte can leak out. That corrosive stuff will tear up the battery case, for sure. Given enough time, it could do the same to you.

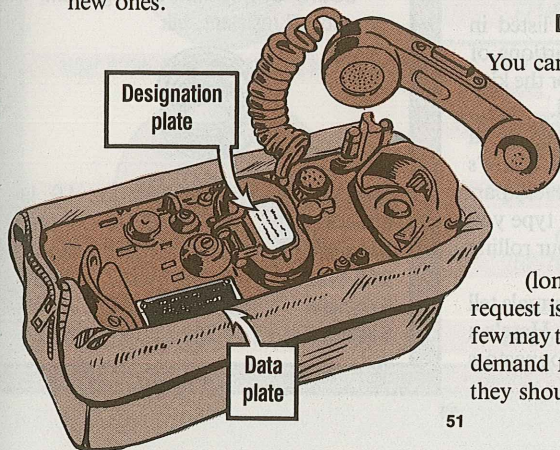
Before you take your viewer to the field, have your org shop check the electrolyte level. If it's too high, support will adjust it.

If you gotta go, keep the battery upright. If you get on your stomach, remove the battery from your belt and stand it up.

TA-312 Telephone...

## Plates and Parts

If your field phone data plates are hanging loose, tighten 'em up. Older sets take a screw, NSN 5305-00-054-5635. Newer phones use screws, NSN 5305-00-253-5609. If your plates are missing, SB 11-631 has the word on getting new ones.

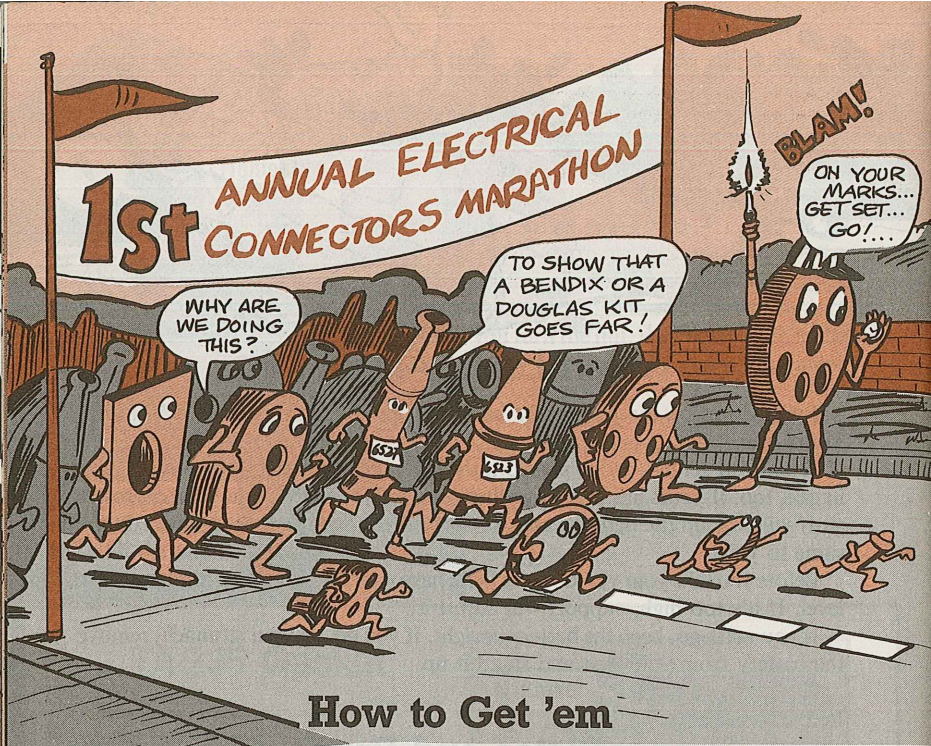


## Designation Plates

You can now stop fabricating designation plates for your field phones. Order what you need with NSN 9905-00-226-1742.

The headshed changed that NSN's AMDF code from "F" (fabricate) to "J" (long lead time, ordered when request is received). 'Course, the first few may take a while to get to you. Once demand from the field heats up, tho, they should become a stocked item.





## How to Get 'em

The electrical tool kit, NSN 5180-00-876-9336, in your No. 1 and No. 2 common shop sets doesn't come stocked with waterproof electrical connectors.

All you get are the items listed in the Hand Receipt Annex portions of the SC's. To get connectors for the kits, you order the ones you need.

But don't go overboard and get a complete Douglas or Bendix kit. There's no way you'll be able to use every part in either one. Order only the type you need from each kit to keep your rolling stock mission-ready.

Your equipment's parts manuals tell you which connectors to use. Here's a breakdown of the different connectors in each kit:

### Bendix Kit, NSN 5935-00-570-1380

— BUSHING, RUBBER: 30 deg cham, syn-rub, oil resistant, blk

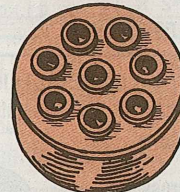


NSN 5365-00-	ID, in	OD, in	LG, in
641-8645	0.495	0.715	0.481
514-4455	0.620	1.057	0.717
514-4457	0.682	1.057	0.697
514-4454	0.745	1.057	0.633
514-4456	0.932	1.370	0.684

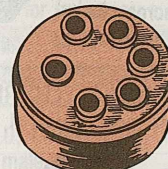
— BUSHING, RUBBER: fldg, syn-rub



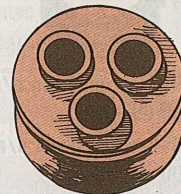
NSN 5365-00-772-2343



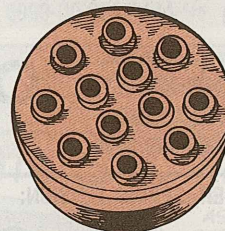
NSN 5365-00-772-2322 (8 holes)



NSN 5365-00-772-2323 (6 holes)



NSN 5365-00-559-0283 (3 holes)



NSN 5365-00-090-5426 (12 holes)

— CONNECTOR, ELECTRICAL: solder, beryllium cop, sil-pltd

NSN 5999-00- LG, in OD, in



771-6523 1.750 0.594



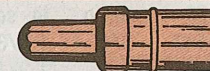
771-6525 1.438 0.438



771-6527 1.433 0.304-0.310

— CONNECTOR, ELECTRICAL: solder, tellurium cop, sil-pltd

NSN 5999-00- LG, in OD, in



368-4852 1.750 0.594



771-6524 1.428 0.435-0.441



771-6526 1.438 0.307

— CONNECTOR, ELECTRICAL: solderless, beryllium cop, sil-pltd

NSN 5999-00- LG, in OD, in



636-6876 1.438 0.188



752-7648 1.047 0.125



259-3143 1.438 0.137



— CONNECTOR, ELECTRICAL:  
solderless, tellurium cop, sil-pltd  
NSN 5999-00- LG, in OD, in



752-7655 1.438 0.188



752-7649 1.047 0.121



752-7651 1.047 0.141



491-8194 1.250 0.121

— GASKET: sq, elec connec, syn-rub,  
1/32-in thk



NSN 5330-00-	ID, in	ln, sq
593-6442	3/4	1 3/32
641-4338	7/8	1 3/16
543-6849	1	1 9/32
641-4336	1 3/8	1 5/8

— RETAINER, PACKING: 30 deg cham,  
al-alloy cd-pltd



NSN 5330-00-	ID, in	OD, in
514-4461	0.516	0.710
514-4460	0.614	1.052
514-4462	0.703	1.052
514-4459	0.766	1.052
514-4458	0.953	1.365

— CONNECTOR, RUBBER: flgd, syn-rub  
0.300-in ID, 0.703-in OD lg end



NSN 5935-00-752-7630

— NUT, BUSHING RETAINER,  
ELECTRICAL CONNECTOR: al, cd-pltd

5/8-24NEF-2 × 15/16  
NSN 5935-00-333-3088

7/8-20NEF-2 × 15/16  
NSN 5935-00-772-3307

1¼-18NEF-2 × 1  
NSN 5935-00-333-9414



— NUT, COUPLING, ELECTRICAL  
CONDUIT: hex, al, cd-chromate fin,  
0.703-in lg o/a

3/4-in across flat  
NSN 5975-00-697-6991

1.125-in across flat  
NSN 5975-00-697-7769



— NUT, COUPLING, ELECTRICAL  
CONDUIT: spanner, coup, al, cd-pltd



1 3/8-18NEF-2 × 45/64-in o/a thk  
NSN 5975-00-697-7860

1 3/4-18NEF-2 × 0.781-in o/a thk  
NSN 5975-00-771-6634

— WASHER, SPRING TENSION: crvd,  
S, cd-pltd

1/4 screw sz; 4 leaves  
NSN 5310-00-752-7639

1/2 screw sz; 2 leaves  
NSN 5310-00-752-7640

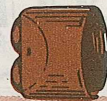
— WASHER, SPRING TENSION:  
waved, S,  
cd-pltd, 3/4 screw sz



NSN 5310-00-595-7486

Douglas Kit, NSN 5935-00-570-1060

— SHIELD, CONNECTOR: fmle, S, glvd,  
parts for fmle assy  
of wtrprf Y type 3  
cond conec



NSN 5935-00-201-8143

— SHIELD, CONNECTOR: fmle, S, glvd,  
parts for male assy of wtrprf sngl  
cond conec



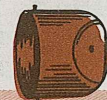
NSN 5935-00-768-7042

— SHIELD, CONNECTOR: male, S,  
glvd, parts for fmle assy of wtrprf sngl  
cond conec



NSN 5935-00-300-9909

— SHIELD, CONNECTOR: male, S, glvd  
parts for male assy  
of wtrprf Y type 3  
cond conec



NSN 5935-00-030-1563

— FERRULE, ELECTRICAL  
CONDUCTOR: sn type, br, sil-pltd,  
15-amp



NSN 5999-00-925-6495 No. 12 AWG

NSN 5999-00-057-2929 No. 14 AWG

NSN 5999-00-926-3144 No. 16 AWG

— SPLICE, CONNECTOR: Y type bz,  
sil-pltd:



NSN 5935-00-501-7177

— BUSHING, CABLE: rub, for 1  
No. 12 AWG

NSN 5970-00-537-8780



— BUSHING, CABLE: rub, for 2  
No. 16 AWG

NSN 5975-00-614-9460



— BUSHING, RUBBER:  
For 1 No. 14 AWG  
NSN 5365-00-629-7273

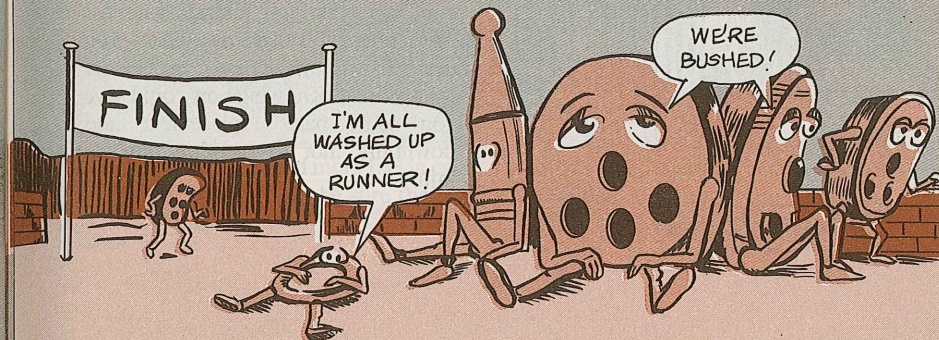


For 2 No. 14 AWG  
NSN 5975-00-614-9458



— CUTTING OIL:  
2-oz cn:

NSN 9150-00-234-5198





# Firing'em Up



HEY! WHERE ARE YOU GOIN' WITH ALL THE HOT WATER?

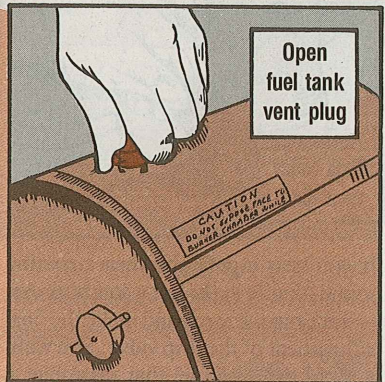
I HAVEN'T HAD A BATH FOR 3 DAYS!

Two models of immersion heaters are in the Army system. One has an igniter cup, the other has a draft gate for preheating and lighting. How you preheat and light the flue of each heater is important. Knowing how could save you some parts replacement and downtime...not to mention possible injury.

## Igniter Cup Heater

Even with the handy igniter cup to preheat and ignite the heater, there's still a knack to getting hot water.

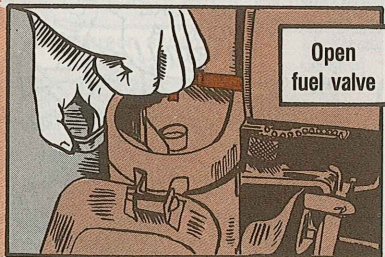
**Preheat the flue.** This is a must. In order for the immersion heater to operate, the correct flow of air must be started before you light the burner. First off, open the fuel tank vent plug



Open fuel tank vent plug

swing out the igniter cup under the fuel valve. See if there's a wick in the cup and the retainer spring is working.

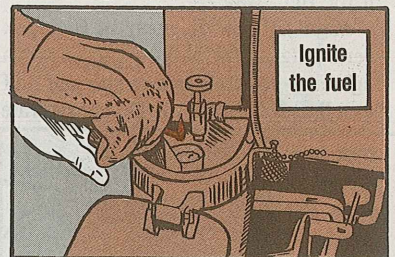
Next, open the fuel valve till the cup is 1/4 full of gasoline, or until the wick is completely saturated. Close the fuel



Open fuel valve

valve. You could need more fuel in cold weather. In any case, be sure the cup doesn't run over.

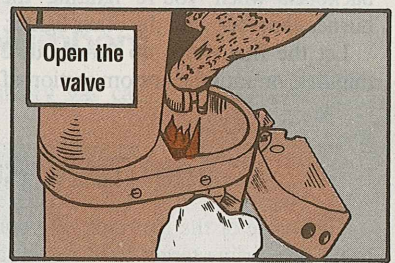
Put on heat-resistant glove, NSN 8415-01-092-3910, and ignite the fuel in the cup with a match.



Ignite the fuel

Now swing the cup back into the flue and let it burn there for 1 to 2 minutes. This'll preheat the flue.

**Start 'er up.** After the time's up, swing the cup out under the fuel valve again. Open the valve and let the stream ignite from the burning cup.



Open the valve

Hold one! Never let your curiosity get the best of you at this point. Keep your face away from the burner chamber. There could be a flash in the pan...and you'd wind up with singed skin...or worse. Swing the lighter cup back into the flue.

The fire should be going great now. Adjust the fuel drip to just below the smoke point. A haze coming from the stack will tell you everything's OK.



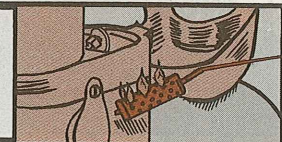
## Draft Gate Heater

It takes a few more tricks of the trade to light up immersion heaters with a draft gate.

The secret of success is in preheating it the right way.

Right off the bat, open the fuel tank vent plug as far as you can. Soak a lighter — torch — in a mixture of half gasoline, half engine oil. Do not saturate

Soak in a mixture of 1/2 gas and 1/2 oil



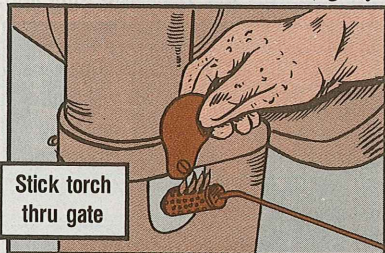
the lighter by holding it under the fuel drip valve. Put on the glove.

Use a match to ignite the lighter. Stick it thru the draft gate into the flue compartment. This gets the whole draft system working. It'll also stop a backblast when you're igniting the burner chamber with the other lighter.

Let the flue warm up for about 2 minutes, or until the bottom section of

the second stack is warm to the touch. Feel it where one stack is inserted into the other and you won't get burned. Remove the lighter and close the draft gate.

As soon as the flue is preheated, open the hood. Now slip the burning lighter — wearing your glove — into the burner chamber. Open the fuel valve slightly.



Stick torch thru gate

If you hear a puff and then a roaring sound, you're in the hot water business.

Take out the torch and make the final adjustment of the drip valve. You want a rapid drop of fuel that resembles a string of beads. Close the hood.

## Fuel Tank Rust Protection

The inside of the fuel tank on your immersion heater is a prime target for a rust attack...specially during long-time storage.

Here's a tip for extra tank protection during administrative storage. Coat the inside with preservation and break-in lubricating oil, NSN 9150-00-111-3199 (5 gal), like so:

Add about 8 ounces of the oil to the empty tank, cap it and coat the interior surfaces by rotating and gently shaking the unit. Drain the excess oil. Before using the heater again, flush the tank with a small amount of clean fuel.

Para 4-28, TM 10-4500-200-13, has the word on how to defend against rust when you're using the immersion heater regular-like.

THIS IS JUST LIKE MIXIN' A MARTINI!

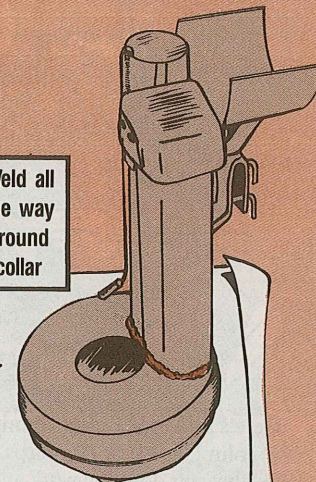


## Weld Broken Collar

Dear Half-Mast,  
The collar on our M67 immersion heater broke off. Is there any way to replace it? Does a broken collar make the heater unserviceable?

SGM H.A.K.

Weld all the way around collar



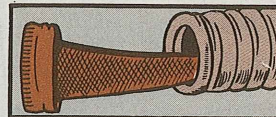
Half Mast

Dear Sergeant Major H.A.K.,  
The collar is not in the supply system. It's OK to weld it back on when it breaks, tho. Originally, the collar was spot-welded. But for a stronger, more lasting bond, it's best to weld it all the way around—like on the new immersion heaters.

If you lose a collar or can't weld it back on, the heater does become unserviceable.

## Gas Can Numbers

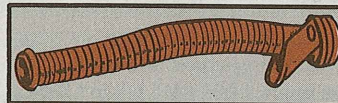
Here're the repair parts on your 5-gal military gas can, NSN 7240-00-222-3088:



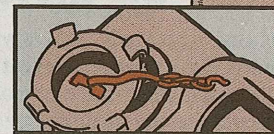
Cap/screen assembly  
7240-00-132-6433



Gasket 5330-00-298-7165



Spout assembly 7240-00-177-6154



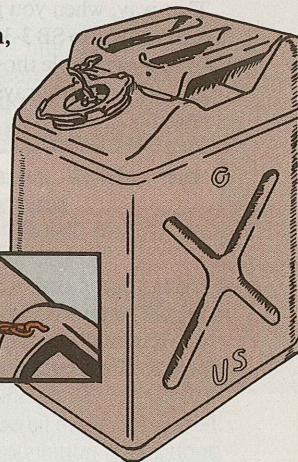
Closure assembly  
7240-00-025-3377



Bottom bushing  
7240-00-132-6431



Bottom washer  
5310-00-228-6638



TM 10-7200-200-13 has the PM word on 5-gal gasoline and water cans.



## Record the Filter Numbers



Here's a SMART idea submitted by SFC John Harvey of III Corps and Ft Hood that cuts down on work and mask damage.

Record the lot numbers of the filters for each mask on a control sheet or on DD Form 314.

That way, when you get the once-a-quarter update to SB 3-30-2, you'll only have to disassemble those masks using filters the update says have to be changed.

NO.	ASSIGNED TO:	MASK ACCOUNTABILITY LIST				DATE LAST CHANGED
		11 JUN 73	21 JUN 73	01 JUL 73	11 JUL 73	
0	CPT Dew's	↑	↑	↑	↑	↑
1	BOKSA	↑	↑	↑	↑	↑
1A1	Hogland	↑	↑	↑	↑	↑
1A2	Johnson	↑	↑	↑	↑	↑
1A3	WESTPAK	↑	↑	↑	↑	↑
1A4	Griffin	↑	↑	↑	↑	↑
1A5	Beecham	↑	↑	↑	↑	↑
1A6	GLAIS	↑	↑	↑	↑	↑

## CP Glove Care

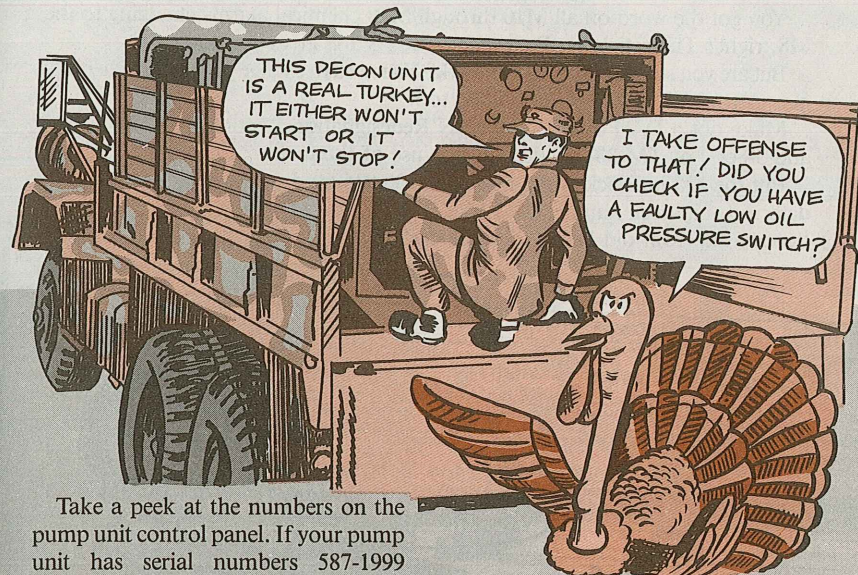
Using your chemical protective gloves without the white cotton inserts wastes money. The inserts absorb sweat, prevent dry rot. They come in 2 sizes.

For the small size CP glove, use the small size insert, NSN 8415-00-268-8354. All other size gloves use the medium size insert, NSN 8415-00-268-8353.

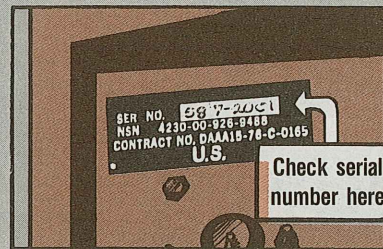
## M58A1 Refill Kits

The M58A1 skin decon training kit is in short supply, but its refill kit, NSN 6910-01-113-2434, is available. Not only do you save money by going the refill route, but you get the material when you need it.

## Low Oil Pressure Switch Fault



Take a peek at the numbers on the pump unit control panel. If your pump unit has serial numbers 587-1999 through 587-2098 on the ID plate in the



upper left corner, chances are that the wrong low oil pressure switch was installed at the factory.

The pump unit will not start with the low oil pressure switch button depressed...or, the unit will not shut down when oil pressure drops during operation.

Normally, you depress the button till the engine starts and you get a 20 PSI or more reading on the oil pressure gage.

You release the button at 20 PSI indicated.

If your pump unit has one of the above serial numbers, forward a message or letter with numbers or numbers noted to:

**US Army Armament, Munitions and Chemical Command**  
**ATTN: DRSMC-MAO-NC (R)**  
**Rock Island, IL 61299**

Do not send the faulty switch. The serial number only is required. Include your full address.

Your unit will get a replacement switch for each serial number reported. It comes with installation instructions, and your unit can request Direct Support to install it...if you don't have an MOS 63J.



## Form Switch on Chemical Alarms

You got the word on all M10 through M18 chemical alarms changing to the M8, right? The article on Pages 60-61 of PS 368 gives you that story.

But are you straight on the paperwork? You need to change your "old" chemical alarms to the M8 in the computers, too!

Make out a DA Form 2408-9 NSN Redesignation Report. Paras 5-8b(2)(g) and 5-8c(3) of TM 38-750 discuss that use of the form.

Put the M8 in Block 7 and NSN 6665-00-935-6955 in Block 8. Use the M43 detector unit serial number for Block 9. Gain Code S goes in Block 17e. Print "converted from old NSN..." in Block 21.

U. S. GOVERNMENT PRINTING OFFICE: 1973 - 518-200

CONTROL NO. <b>608601</b>	1. ORGANIZATION <b>217B FA</b>	2. LOCATION <b>APO New York 09139</b>	3. UNIT IDENT CODE <b>WD2 VTO</b>	4. UTILIZATION CODE <b>ON</b>	5. VEHICLE USE CODE
6. NOMENCLATURE <b>Chemical Alarm</b>	7. MODEL <b>M8</b>	8. NATIONAL STOCK NO. <b>6665-00-935-6955</b>	9. SERIAL NO. <b>12345</b>	10. REGISTRATION NO.	11. YEAR OF MFG
12. MANUFACTURER (MFG Code)	13. CONTRACT NO.	14. PURCHASE ORDER NO.	15. SHIPPED TO a. ORGANIZATION	16. TYPE REPORT	17. REPORT CODE
18. USAGE	19. SHIPPED TO b. ORGANIZATION	20. FROM UIC	21. REMARKS <b>Converted from old NSN 6665-00-169-1449</b>	a. ACCEPTANCE AND REGISTRATION	b. USAGE
c. TRANSFER	d. LOSS	e. GAIN	f. OTHER	22. INSPECTOR	3212
EQUIPMENT CONTROL RECORD For use of this form, see TM 38-760; the proponent agency is the Office of the Dep.					
REPLACES DA FORMS 2408-7, 1 JAN 64, AND 2408-9					
DA FORM 2408-9 1 OCT 72					

PROL SYMBOL  
FORM  
NMP COPY 1

THE LOGBOOK COPY OF THE DA FORM 2408-9 IS YOUR NEW PERMANENT RECORD ON THE M8...

...PUT IT IN YOUR DA FORM 2408-9 ACCEPTANCE AND GAIN REPORT BINDER.

Send the NMP copy through your data reduction center to:

Commander  
USAMRSA  
ATTN: DRXMD-MS  
Lexington, KY 40511

Trashcan the DA Forms 2408-9 on your M10 through M18 alarms. Make sure your property book records keep up with the change, too!

NBC Training Films, Tapes

## Seen Any Good Movies Lately?

NOW—  
THIS IS JUST A LIST OF WHAT YOU CAN GET!

THIS IS A TRAINING FILM?

- TF 3-6121 M256 Chemical Agent Detector Kit
- TF 3-6123 Emergency and Partial Decontamination
- TF 3-6124 Complete Personnel Decontamination
- TF 3-6125 Nerve Agents—First Aid and Decontamination
- TF 3-6158 Introduction to the Automatic Chemical Agent Alarm
- TF 21-6245 Battalion Task Force Smoke Operations—Defense (How to Fight)
- TVT 3-51 Chemical Protective Clothing
- TVT 3-53 NBC Element in a Nuclear Operation
- TVT 3-55 Mission Oriented Protective Posture (MOPP)

Other tapes and films are in the making. Watch for them.

Check out the TEC Lessons in the ETM catalog in your unit or at the local Training and Audiovisual Support Center (TASC). Also contact your local TASC for any late additions to NBC films or tapes available.

DA Pam 108-1 also gives you a listing of other films and tapes.

## Easy on Your Compass

Be extra careful next time you put the M2 compass in the M19 carrying case. If you push down too hard on the snap button that secures the cover, you'll break the mirror. Then you've got to turn in the compass for replacement. No repairs are authorized. For more good maintenance tips, see TM 9-1290-333-15 with C3.





## All-In-One Training Pub

DA Pam 351-20, Correspondence Course Catalog (Mar 83), includes everything that was in 22 separate volumes — and more!

Part I tells you how to enroll in the courses.

Part II lists all of the correspondence courses, subcourses and credit hours available through 18 TRADOC schools and 4 DOD/DA consolidated activities. It also explains what the courses are about and how you qualify.

Part III lists 3,000 subcourses with short descriptions, the MOS they support and the number of credit hours you get. Of course, the correspondence courses are free to all US Armed Forces (that includes Armed Forces civilians).

Also, there's another bennie to the courses. Active Army soldiers, E-5 and below, get one promotion point for every 5 hours of correspondence course credit. National Guard and Reserve types get one retirement point for every 3 hours of correspondence course credit. Some correspondence courses even offer college credit!

Your training NCO or Learning Center will have a copy of DA Pam 351-20. If not, have your pubs people order one on a DA Form 4569 through AUTODIN.

Want more information than the pam gives? Write:

**Institute for Professional Development  
US Army Training Support Center  
Newport News, VA 23628**

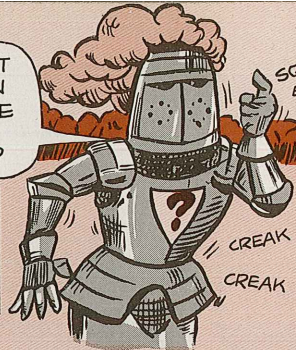
Or, call AUTOVON 927-3085, FTS 988-3085 or commercial (804) 878-3085.

IF YOU'RE INTO IMPROVING YOUR GRADE (AND WHO ISN'T?), CHECK OUT DA PAM 351-20!



CONNIE, WOUDS'T THOU HAVE A CAN OPENER TO FREE ME FROM MY RUSTED ARMOR?

Connie's  
★ POST ★  
SCRIPTS



## TVQ-2 G/VLLD Caution

Forcing the laser shorting plug into the 1J1 jack of the LD/R, AN/TVQ-2 target designator set, can fry you and some very expensive equipment.

The plug and 1J1 jack on the LD/R (laser designator/rangefinder) are keyed. Be sure G/VLLD power is off. Mate the wide key and keyway and the plug will seat. If you force the plug (hammer, rock, whatever), 900 volts will come at you, the wiring harness and equipment components. Page 2-99, of C2 to TM 9-1260-477-12 spells it out.

## 2-Pound Hammer, Please

Page 14 of PS 370 shows a soldier driving on a track end connector with a 10-pound sledgehammer. That's wrong. Use only the 2-pound hammer that's part of your tank's Bill.

\* U.S. GOVERNMENT PRINTING OFFICE: 1983-659-007/12

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

## Cold Samples OK

SMART Msg #32, HQDA DALO-PLO 112025Z Aug 83, has the whole story.

You no longer have to warm up equipment to operating temperature before taking an oil sample. That is, unless the air temperature is below 35°F or the equipment has not been operated within the past 7 days. Be sure to read the message for full details.

## U-410 Adapter

You can now get a good U-410 adapter connector for your AN/PSM-13 battery test set with NSN 5935-01-083-0688.

## OE-254 TM Flipped Fig

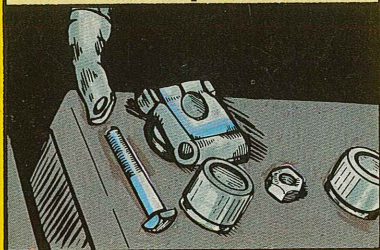
Hold the DA Form 2028's on Fig 2 of TM 11-5985-357-23P (Jun 83). The commo headshed knows it's reversed. An updated pub will soon be fielded. Until then, use a mirror to get the picture.



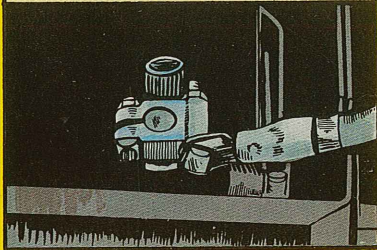
**GOT THE  
BATTERY BLUES?**

**THEN TIGHTEN THOSE CLAMPS  
AND CABLE CONNECTIONS!**

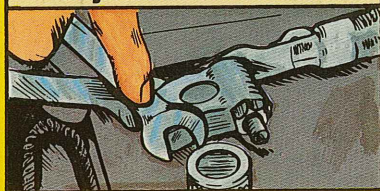
**Take off only  
cable — not clamp  
— when possible.**



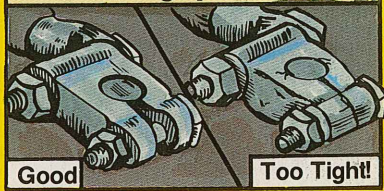
**For single cable,  
mount under bolt  
head — not nut.**



**Use right-size  
wrenches, not  
adjustable wrench.**



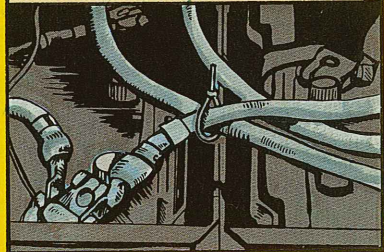
**Only snug! Too much  
stretches clamp — loses  
grip.**



**Check with fingers  
— not pliers.**



**Support long cables  
with tiedown straps,  
NSN 5957-00-074-2072.**



**YOU CAN BE A BATTERY EXPERT!  
SEE TM 9-6140-200-14, CHAPTER 2**