

Issue 379

PS

June 1984

# THE PREVENTIVE MAINTENANCE MONTHLY

HEY, THEY MUST  
BE DOLLING UP  
MY TRUCK AS A  
BIRTHDAY  
SURPRISE!

STICK THIS UP WHERE  
HE CAN'T MISS IT!  
AND, YOU'LL BE RIDING  
SHOTGUN 'TIL HE QUITS  
TEARING UP HIS TRUCK!

**DON'T RIDE  
THE CLUTCH**

**RELEASE  
PARKING  
BRAKE**



# Driving Toward Excellence



Published by the Department of the Army for the information of all soldiers assigned to combat and combat support units, and all soldiers with organizational maintenance and supply duties.  
 Within limits of availability, older issues may be obtained direct from Editor, PS Magazine, c/o US Army Materiel Readiness Support Activity, Lexington, KY 40511.

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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:

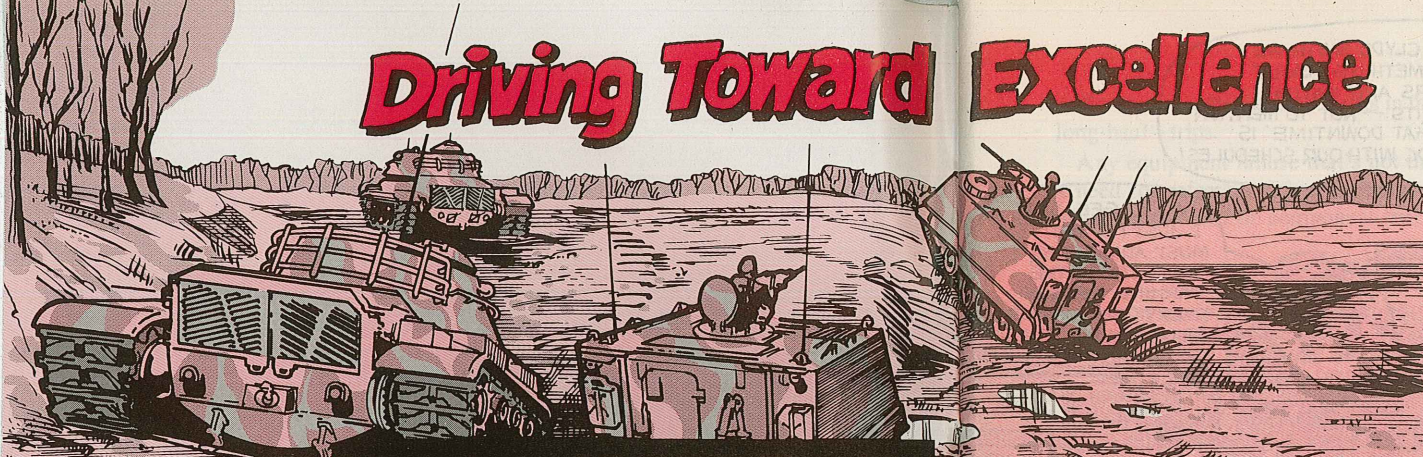
**MSG Half-Mast  
PS Magazine  
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40511**

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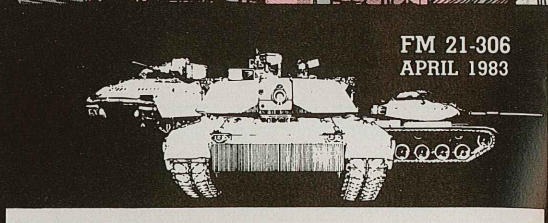
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If you operate a track combat vehicle, it's for sure you need a copy of FM 21-306, Manual for the Track Combat Vehicle Driver.

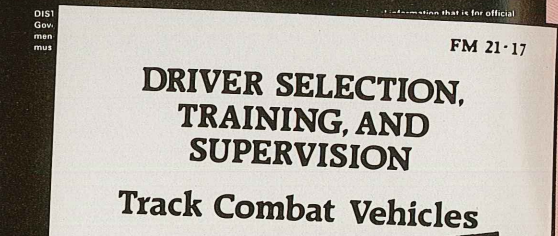
If you operate a tactical wheeled vehicle, FM 21-305, Manual for the Wheeled Vehicle Driver, is for you. These FM's have up-to-date info that'll help make you a better driver. It covers vehicle care, safety, driving in different types of terrain, convoying, water crossing and field expedients.

Also good to have on hand is FM 21-17, Driver Selection, Training and Supervision. It spells out what it takes to be a good track-combat vehicle driver and includes test questions and checklists that'll give you an idea of how you stack up.

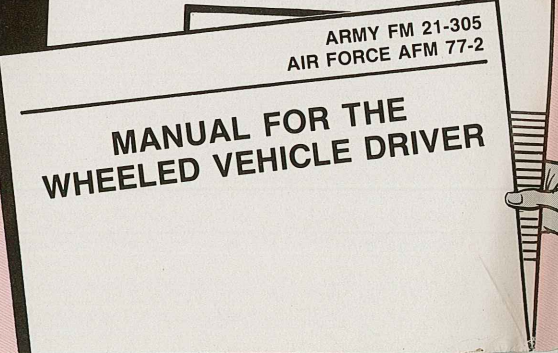


FM 21-306  
APRIL 1983

Manual for the  
**Track Combat Vehicle Driver**



DRIVER SELECTION,  
TRAINING, AND  
SUPERVISION  
Track Combat Vehicles



ARMY FM 21-305  
AIR FORCE AFM 77-2  
MANUAL FOR THE  
WHEELED VEHICLE DRIVER

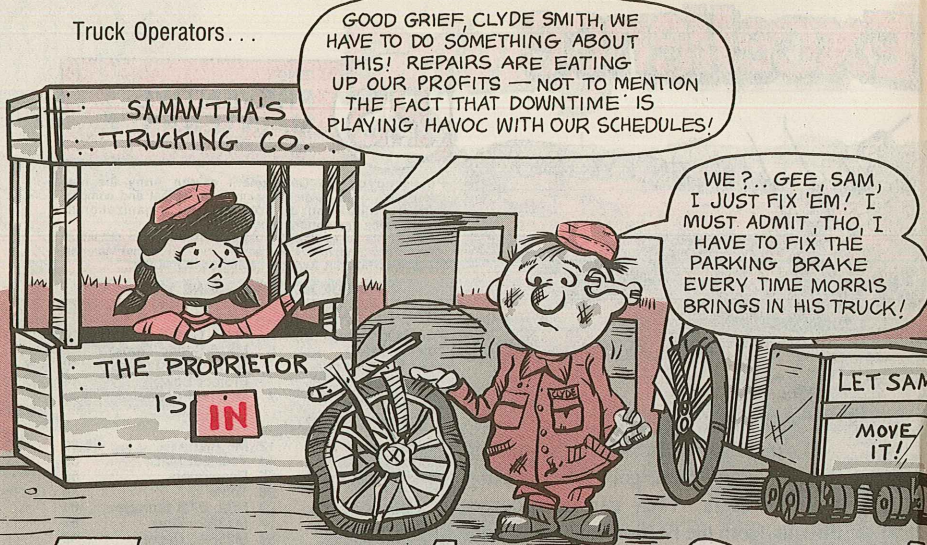
If your unit doesn't have copies of these FM's on hand, get with your publications clerk. They can be ordered directly from the Baltimore Pubs Center on DA Form 4569 via AUTODIN.

Better yet, have your clerk place a standing order for these FM's. That order goes in on DA Form 12-34B, Block 165. That way, new editions or changes will come direct to your unit by pinpoint.



BE SURE TO ORDER ONE COPY FOR EACH DRIVER!

Truck Operators...



GOOD GRIEF, CLYDE SMITH, WE HAVE TO DO SOMETHING ABOUT THIS! REPAIRS ARE EATING UP OUR PROFITS — NOT TO MENTION THE FACT THAT DOWNTIME IS PLAYING HAVOC WITH OUR SCHEDULES!

WE?... GEE, SAM, I JUST FIX 'EM! I MUST ADMIT, THO, I HAVE TO FIX THE PARKING BRAKE EVERY TIME MORRIS BRINGS IN HIS TRUCK!

# Train 'em Again, Sam!

There's no excuse for a driver moving out with the truck's parking brake on. Yet, it happens—a lot. It's the biggest cause of parking brake failure and causes a lot of clutch damage.

The driver's fault? Some, yes—but maybe not altogether.

A soldier's failure to do right by his equipment can often be traced to a lack of thorough training—or a need for refresher training. This is especially true of operators who don't get a lot of day-in, day-out experience. Their trucks



HONESTLY, MORRIS, THIS BUSINESS OF BURNING UP PARKING BRAKES HAS GOT TO STOP! I KNOW YOU KNOW BETTER — YOU GOT THE SAME TRAINING AS EVERYBODY ELSE! IS SOMETHING TROUBLING YOU? DO YOU HAVE PROBLEMS AT HOME OR SCHOOL? I HAD BIG PLANS FOR YOU, BUT NOW... I DON'T KNOW...

GOLLY, SAM, I JUST FORGET SOMETIMES TO TAKE THE BRAKE OFF BEFORE I MOVE OUT!

suffer more needlessly than trucks in the hands of drivers who make frequent—or long-haul—trips.

Any equipment failure that's not the result of fair-wear-and-tear may signal a need for refresher driver training—with emphasis on that part of operation affecting the part or component that failed.

## Detect—Act!



GOOD GRIEF, CLYDE SMITH, THESE MAINTENANCE RECORDS SHOW THAT MORRIS ISN'T THE ONLY DRIVER WHO NEEDS SHAPING UP! IF THEY CAN'T GET MORE PRACTICE, AT LEAST WE CAN GIVE THEM SOME REFRESHER TRAINING!

GREAT IDEA, SAM! MORRIS PROBABLY NEEDS ONLY A FEW MINUTES WITH A GOOD DRIVER—LIKE PAULEY — TO POLISH OFF THE ROUGH EDGES!

This need for training won't be signaled by flashing lights or ringing bells. Action depends on alert maintenance personnel, starting with sharp mechanics who spot the equipment failure as "unusual." Followup action taps the driver for refresher training—maybe no more than a few minutes of normal operation under the watchful eye of an experienced, highly qualified driver.

And there's a good chance other driving faults will be detected—and corrected. Common are:

- ★ "Riding" the clutch—using the clutch pedal for a footrest during travel or any other time the engine's running. Drivers who understand how the clutch works are not so likely to be clutch-riders. They know clutch-riding damages clutch parts. So, effective training includes explaining clutch operation.

- ★ "Slipping" the clutch—holding the truck in place on an upgrade by partially engaging the clutch instead of using the brake. This happens on a hill where there's a traffic light or stop sign. Clutch-slipping burns up the clutch facing.

- ★ "Popping" the clutch—letting the clutch pedal come up too fast instead of easing it up slow 'n' steady. Sudden clutch engagement is hard on all drive train components. It can even snap prop shaft U-joints. The driver may not know what a U-joint is—what it does, what it looks like. Needed training may be nothing more than a close look at a ruined U-joint along with an explanation of how clutch popping damaged it.

★ “Lugging” the engine—operating in a high gear with low engine speed. This’s hard on both the engine and drive train. Drivers who have operated only vehicles with automatic transmissions may not understand lugging—but they should notice the truck shuddering as the engine struggles against the load. Until they get the feel of it, they need training in gear-for-speed, as spelled out in their operator’s TM or instrument panel instruction plate.

### A Stitch in Time . . .

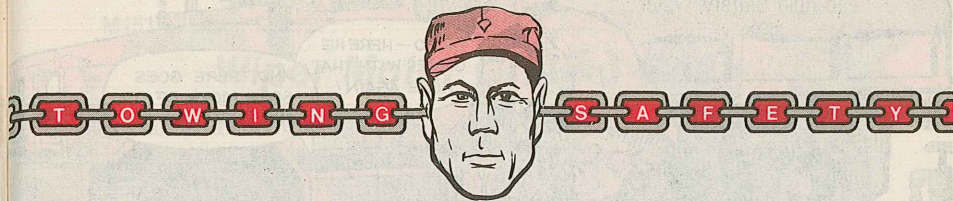
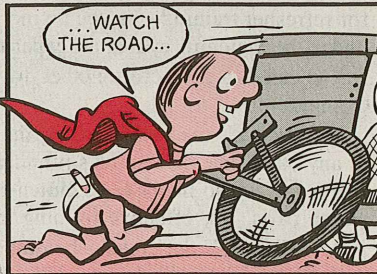
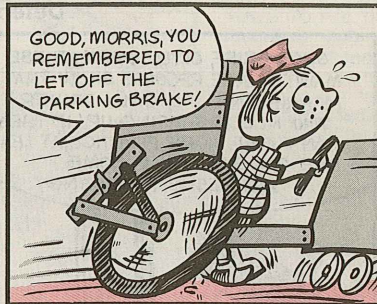
Allowing a driver to repeatedly damage his truck’s clutch—or any other part—needlessly chews up shop time and money. In a small fraction of the time required to replace a U-joint, the driver’s bad habit could have been corrected.

Sharpening up a driver who already knows the basics may not call for a heavy training program. Simple, temporary training devices may do the job—using paint, ribbons, whatever.

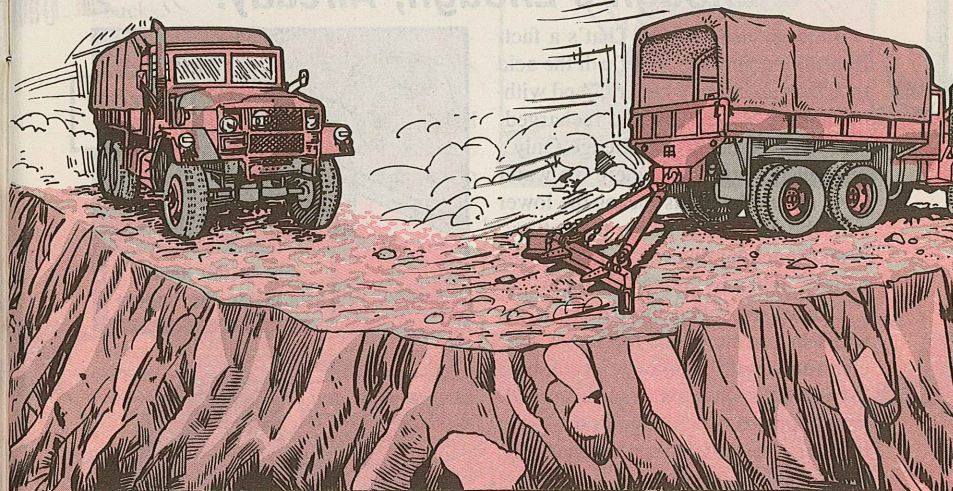
Like a sign taped to the instrument panel:

“Release parking brake before moving out!”

SO TAKE A HINT FROM THESE LITTLE KIDS. LEARNING TO DRIVE RIGHT TAKES LESS TIME THAN DOWNTIME IN THE SHOP!



## The Most Important Link—You!



Just like a chain, your towing setup is no better than its weakest part. Your failure to detect any missing or damaged part can set you up for an accident!

The “links” connecting your tow vehicle and the towed vehicle start with the tow vehicle’s rear frame crossmember. Then there are the brackets and rivets that connect the crossmember to the main frame members. It goes on thru . . .

*the tow pintle and its mounting hardware;  
tow bar and every one of its parts . . . and safety chains, if required;  
lifting shackle brackets on the towed vehicle.*

. . . to the front bumper of the towed vehicle . . . and the hardware mounting the bumper to the frame.

Got the message? Before you hook up for towing, inspect every “link” in the setup.

Find anything wrong? Loose? Missing? Cracked or broken? Badly worn? Get it fixed before you tow. Somebody’s life—including yours—may depend on it!



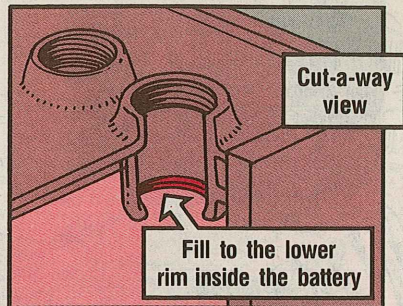
## Enough's Enough, Already!

Batteries need water. That's a fact. But too much water will flush the acid (electrolyte) out of a battery. And without acid, a battery can't be recharged. "Keep Tight—Fill to Ledge Only" on vent/fill caps tells where the water level should be. This means the lower rim, tho... the one inside the battery. Water touching this rim will cover the battery plates by about 3/8 inch.

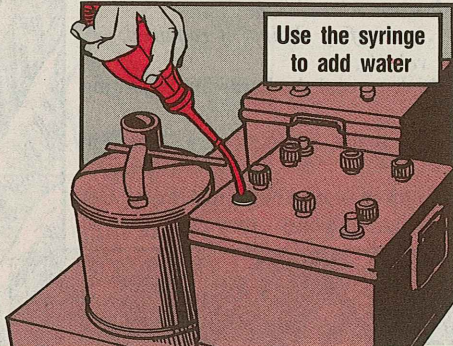
You've overfilled the battery if the water brims the vent's top ledge. The electrolyte will "boil over" each time the battery's charged. You lose acid. With repeated overfilling, all that's left is water. The battery won't recharge on plain water.

### Battery Filling How-To

Distilled Water (5 gal)	NSN 6810-00-356-4936
Gravity Battery Filler	NSN 6140-00-635-3824
Syringe Filler	NSN 6140-00-808-7325



HERE'S WHAT YOU NEED TO ADD WATER TO A BATTERY!



Carry the water to the battery in the gravity filler. Don't use its hose to fill the battery, tho. That's the job of the syringe. It'll let you control the stream of water going into the battery.

Stop when the water reaches the **lower rim** of the vent.

## Wiper Motor Ground Guilty?

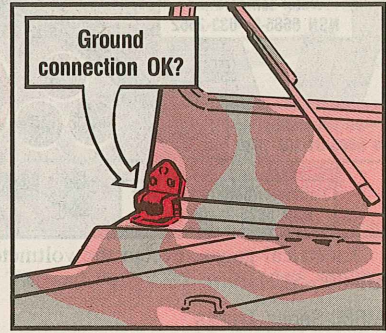
Your 1/4-tonner's windshield wipers on the blink? The easy fix is a new wiper motor. But that may be more than is needed.

Could be only a bad motor ground. Some mechs replace good motors because they don't troubleshoot. If they did, they'd save both time and big bucks.

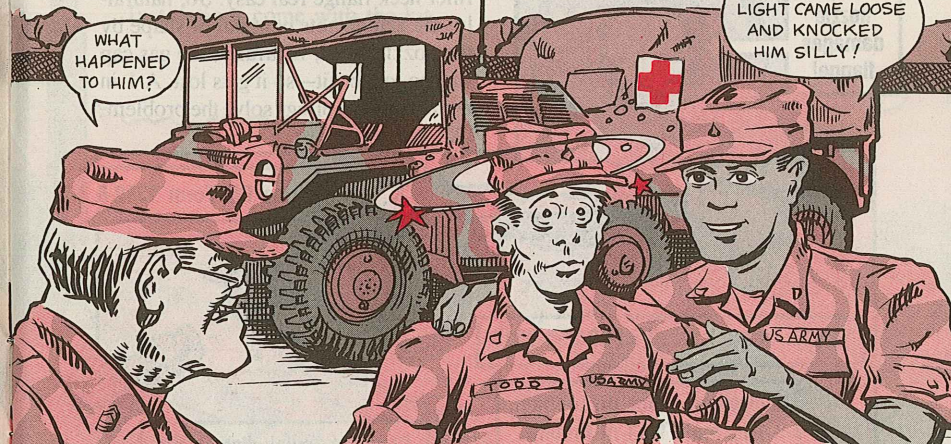
Page 3-144 of TM 9-2320-218-20-1-1 gives you the complete instructions for testing the motor ground.

Pay special attention to Steps 4 and 5a, because dirt, paint and corrosion on the windshield hinges often combine to

break the ground connection between the windshield frame and the body of the truck.



## Nuts Save \$200 Light!

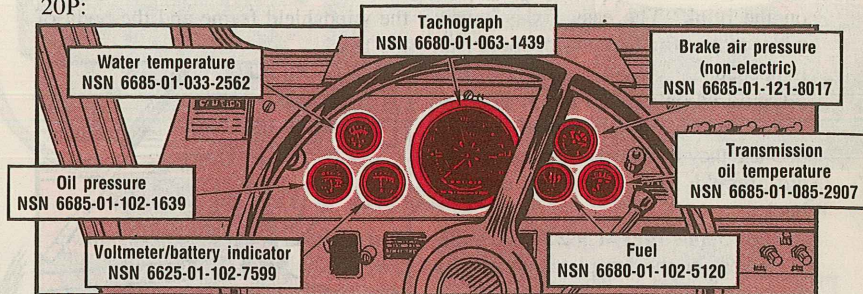


A nut loosens and falls off... then another... and another... and soon your surgical light answers the call of gravity. Crash! More than \$200 for a new light!

Vibration—especially during cross-country travel—can loosen the 8 nut-and-bolt mounts for the light and its support brackets. It takes only a minute or so to check. Keep that mounting hardware tight!

## Fresh Look at Gages

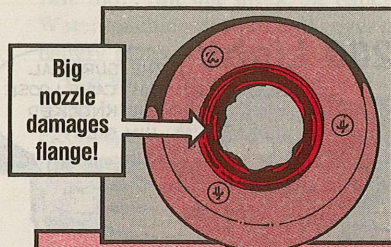
Here's the current supply info for instrument panel gages in TM 9-2320-270-20P:



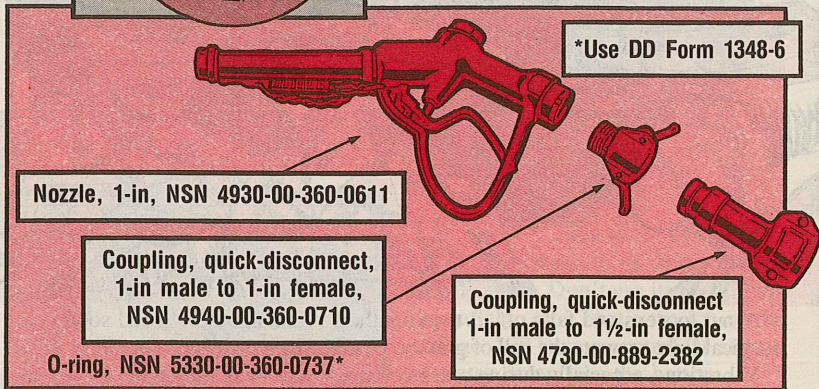
Electrical gages, except the voltmeter, need a voltage adapter, NSN 6625-01-096-5271.

M880-Series Trucks...

## Use Smaller Fuel Nozzle



The standard 1 1/2-in fueling nozzle on fuel trucks is too big to slip past the filler neck flange real easy. So, naturally, the flange gets bent out of shape by the nozzle. And, naturally, the gas cap will no longer fit—so it gets lost. A 1-in nozzle and couplings solve the problem, like so:



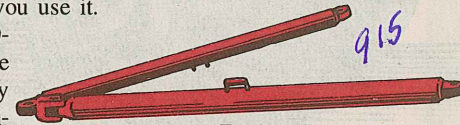
Use CTA 50-970 as the authority. If the filler neck flange is already ruined, get it replaced with NSN 4710-01-066-6470.

## Tow Them Home the Right Way

Towing a disabled M915-series truck is tricky business because the trucks are so heavy.

The 5-ton wrecker is not big enough to handle an M915-series truck safely. And the wrecker's towbar, NSN 4910-00-433-7094, isn't up to the job either. It can bend—or even break—when you use it.

What you need is towbar, NSN 2540-00-378-2012. This is the bigger one carried on M578 and M88A1 recovery vehicles. It's in the Additional Authorization List in TM 9-2320-273-10 and TM 9-2320-283-10.



Towbar  
NSN 2540-00-378-2012

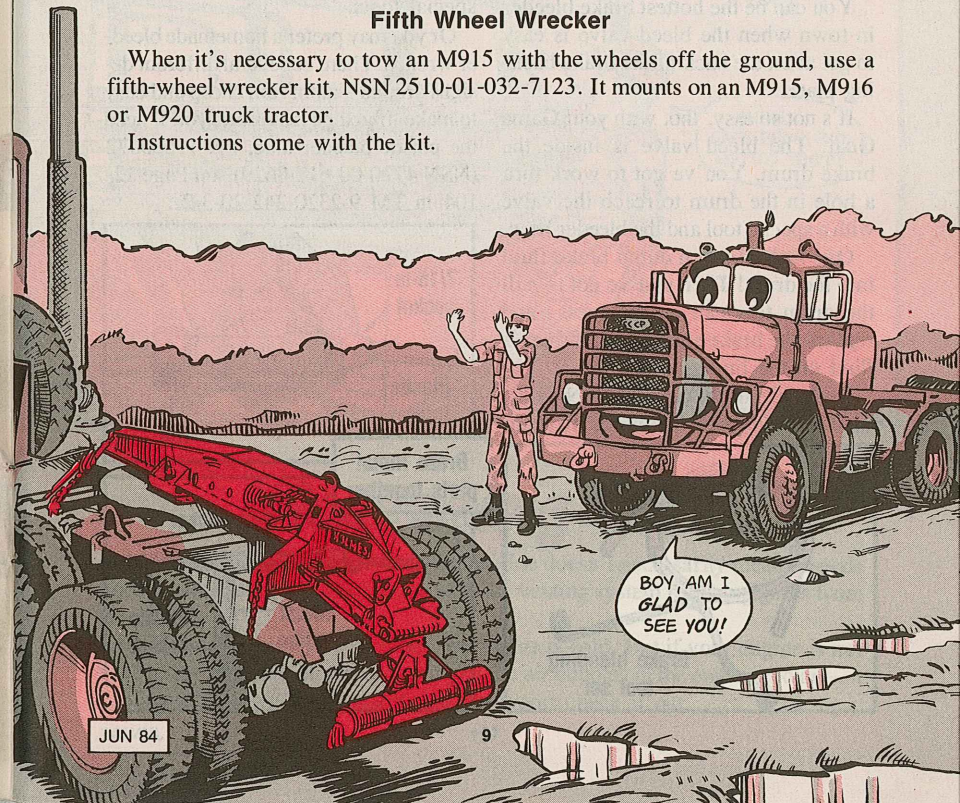
Be sure to use an M915-series vehicle of the same model—or a heavier one—to tow a disabled truck.

Check out Para 2-27 of the -273-10 TM and Para 2-25 of the -283-10 TM for more towing information.

## Fifth Wheel Wrecker

When it's necessary to tow an M915 with the wheels off the ground, use a fifth-wheel wrecker kit, NSN 2510-01-032-7123. It mounts on an M915, M916 or M920 truck tractor.

Instructions come with the kit.



Gama Goat...

EXCUSE MY BEDSIDE MANNER, BUT BLEEDING WILL HELP YOUR CIRCULATION!



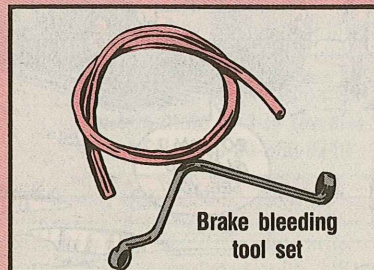
## Bleeding Can Be Painless

You can be the hottest brake bleeder in town when the bleed valve is easy to get at on the back of the brake backing plate.

It's not so easy, tho, with your Gama Goat. The bleed valve is inside the brake drum. You've got to work thru a hole in the drum to reach the valve with a special tool and the bleeder hose.

One little slip can dump brake fluid into the drum! Then you've got to pull the drum to clean up the mess—and replace the brake shoes, too, if there's fluid on the linings.

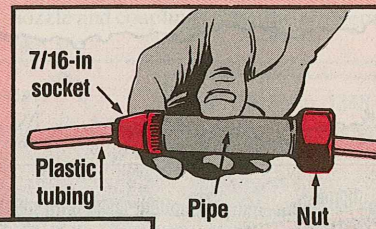
—Brake bleeding tool set, NSN 5120-01-024-1029, can be added to your



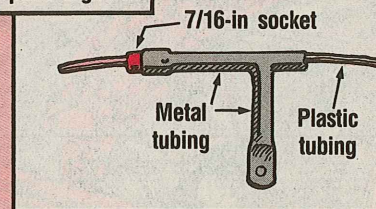
Brake bleeding tool set

special tools.

Or you may prefer a homemade bleeder wrench. There're several different designs around—all of 'em cheap and easy to make. If you go that route, you'll need the plastic bleeder tube, PN 11660072 (NSN 4720-00-617-8629), on Page 12-104 in TM 9-2320-242-20-3-2.



Braze metal parts together



## Protect Bows With Oil and Paint

Dear Half-Mast,

Wood parts of bows on trucks and trailers rot quickly here. Then the wood and metal parts separate. And the only way to replace bow parts on some vehicles is to order the whole assembly!

How can we prevent wood rot?

CW2 K.D.S.

Dear Mr. K.D.S.,

Take the bows—and canvas—off the vehicles and shelter them when not in use.

Whether the bows are sheltered or not, keep wood parts protected with linseed oil or oil-base paint—or both.

Brush linseed oil, NSN 8010-00-152-3245, on the wood. Let the oil soak into the wood and dry. Then brush on olive drab oil-base paint, NSN 8010-00-297-2105.

Half-Mast



Multifuel Engines...

## Hissssing OK?

A hissing sound from your multifuel engine doesn't necessarily mean it needs a new head gasket. The hissing sound is the venting system releasing gases from the engine.

It's normal to hear hissing when the engine is cold. But if your engine is hot and hissing with loss of power—or if you see air bubbles in the engine coolant—it may have a blown head gasket. Have support check it out.

# Scoop Loader PM Tips

THESE PM TIPS WILL KEEP YOUR SCOOP LOADER PURRRING!

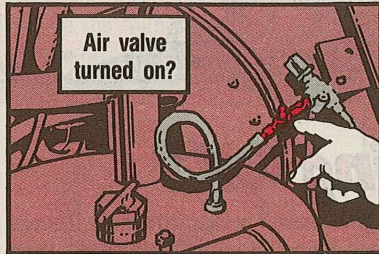
GOTTA GET ANOTHER SCOOP OF PM



## Hydraulic System

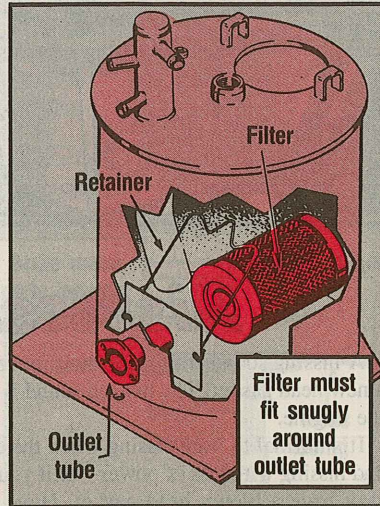
If the hydraulic system is sluggish, check the oil level in the hydraulic reservoir. If it's low, add oil to the FULL mark on the dipstick.

Be sure to turn the air valve ON after you check the hydraulic fluid level in the reservoir. If you leave the valve OFF, there's no air pressure to push hydraulic oil to the pump. No oil—dry pump—no pump.



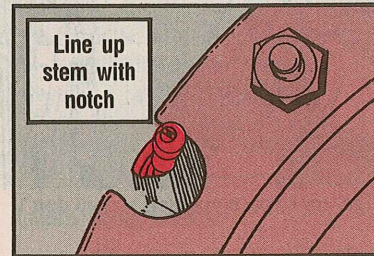
Oil level OK and air valve open but the hydraulic system is still sluggish? Maybe a loose oil filter in the reservoir is your problem.

The filter has to fit snugly around the outlet tube. Be sure the spring retainer is clamped over the filter, too. This'll stop filter movement, let oil flow smoothly thru it and make for normal operation.



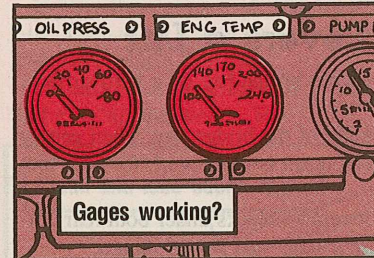
## Valve Stem Lineup

When you mechanics put on a wheel, make sure the tire valve stem lines up with the notch in the axle flange. This will keep pressure off the valve stem and head off damage.



## Temperature Gages

If the oil pressure, converter temperature or water temperature gages aren't working, check the resistor at the back of the gage with a multimeter.



You should get a reading of about 75 ohms. If not, replace the resistor.

If the resistor is OK, check the transmitter. Turn the master switch ON. Disconnect the wire from the transmitter. Touch the positive probe of the multimeter to the wire and the negative probe to a clean spot on the transmitter case. If you get a steady

22-24 volt reading but the gage still doesn't work, replace the transmitter. If you don't get voltage, you could have a bum gage or broken wire.

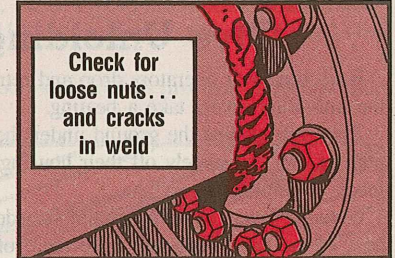
Remove the wire opposite the resistor at the gage. Use a multimeter. Touch the positive probe to that terminal on the gage and touch the negative probe to ground. If you get a steady 22-24 volts, the gage is OK and the wire is bad. No voltage? Replace the gage.

## Loose Brake Nuts

The nuts and bolts that hold the service brake backing plate loosen up in service.

If the nut comes off, the bolt drops inside the brake drum—and that's no place for stray bolts!

Check for missing or loose nuts once a month. A shiny spot or fresh rust around a nut is a tipoff it's loose. The nuts are on the back of the axle flanges.

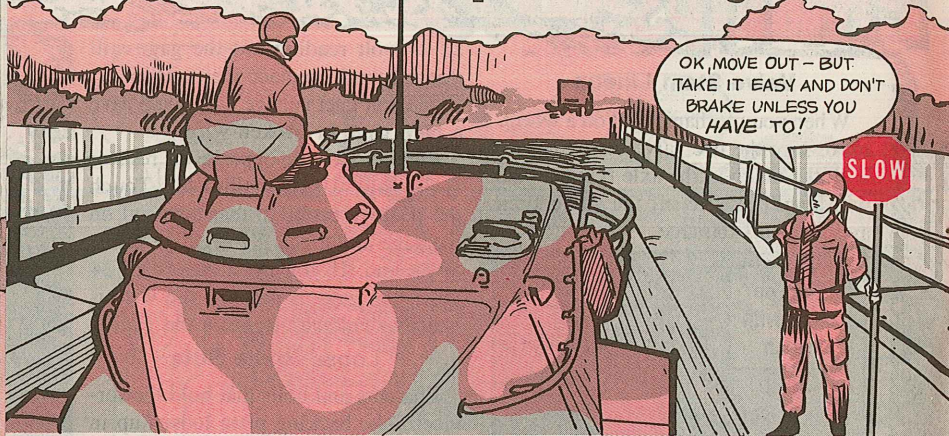


If you find a missing or loose nut, report it to DS. They'll pull the wheel and brake drum and torque the nuts to 175-185 lb-ft.

While you're checking, look for cracks in the weld between the axle and flange. If you find a crack, have support weld the flange like Page 5-3.5 of TM 43-0143 says.



## Smooth Stops Save Bridges



When you're driving across a ribbon bridge, try to pace yourself so you don't have to stop.

Hard stops put extra stress on the roadway connectors that hold the roadway pontoons. This stress can cause them to bend or break. The roadway receptacles can even be snatched completely out of the pontoons.

When crossing a bridge, keep your speed to a minimum. Take it easy on the brake pedal, and always make sure you have a ground guide.

Ribbon Bridge...

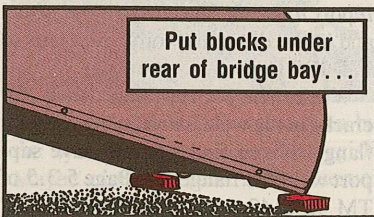
## Give Unfolding Levers a Lift

Each time you operators drop and retrieve your bridge bay on a hard surface, the unfolding levers take a beating.

They rub against the ground under the weight of the bridge bay, often getting bent or torn completely off their housings. The result is more work for your unit mech or direct support.

Give the levers relief by putting wooden or cement blocks under both rear corners of the bay. That will raise them off the ground and out of danger.

Be sure to stay out from under the bay while you're positioning the blocks.



Put blocks under rear of bridge bay...



...to protect unfolding levers

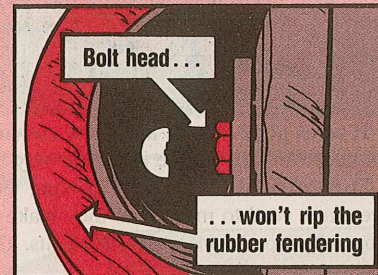
## Reverse the Fendering Bolts

TM 5-1940-277-20 says to insert the fendering sections' mounting bolts from inside the boat.

Only trouble is, if a ribbon bridge bay or another boat bumps into the fendering, the bolt ends rub against the fendering and rip the soft rubber. Before you know it, the boat's beached for repairs.

So, turn the bolts around so the heads are **outside** the boat. That way, the bolts can't rip the rubber.

The bolts aren't long enough to be any danger to people inside the boat.



Check now to see how those bolts are mounted. Reverse them if necessary, and you'll save yourself some work in the long run.

Lattice Boom Cranes...

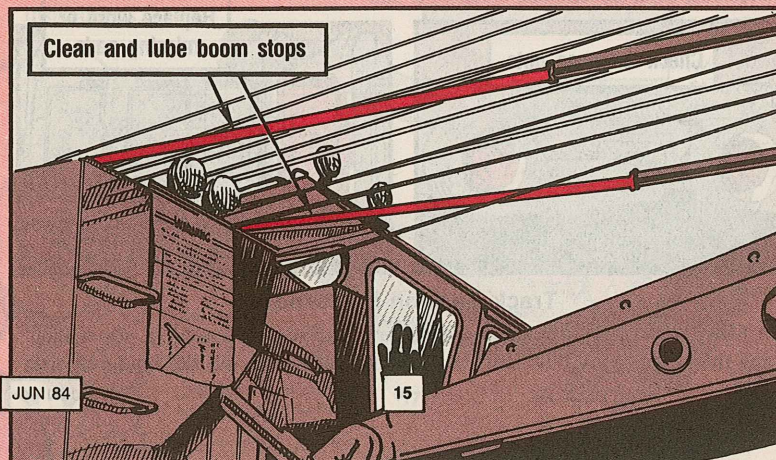
## Keep Boom Stops Sliding Free

Rust or dirt can cause the boom stops on lattice boom cranes to bind. Then, when the boom is raised, the stops bend.

Boom stops keep the boom from being raised too far and falling back onto the crane.

If your stops are rusted, but not stuck, use a wire brush to remove any loose rust. Then apply a light coating of CW-II to head off more rust. NSN 9150-00-234-5199 gets a 5-lb can.

Go easy with the grease. If you use too much, it will mix with dust and dirt and clog up the works, too.



# Eyeballing Your Track

It takes good drivers and good crewmen to make T132E1 track last. That's because the pads for the track are only 3/8 inch above the grousers when new.

Drivers need to use good driving techniques, for one thing. For another, crewmen need to make sure they make the track and track component inspections after operations and during halts. That way, you'll get all the wear possible from your track.

## Driving Tips

- Brush up on your techniques by reading FM 21-306, Manual for the Track Combat Vehicle Driver, and FM 21-17, Driver Selection, Training and Supervision for track combat vehicles. Good driving is just as important as good preventive maintenance and good inspections.

- Keep speed slow and steady. High speeds build up heat that causes tearing and chunking.

- Start and stop smoothly. Fast starts and panic stops eat up pads in a hurry.

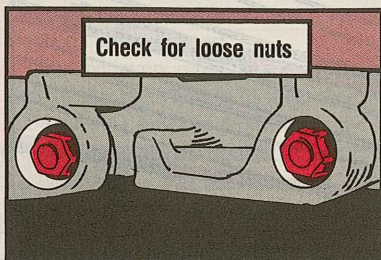
- Turn in long, smooth curves. Pivot steering at any speed wears out more pad rubber in a few seconds than a whole day's road march.

- Remove debris and crud from the track after each operation. This includes mud—which can freeze—rocks, wire, brush, etc.

## Track Inspection

- Look for broken or damaged shoes and loose track shoe nuts. When you find a loose one, tighten it.

- Replace worn track pads when the grouser begins to mark a paved road. Never run on a paved road without a pad.



Check for loose nuts



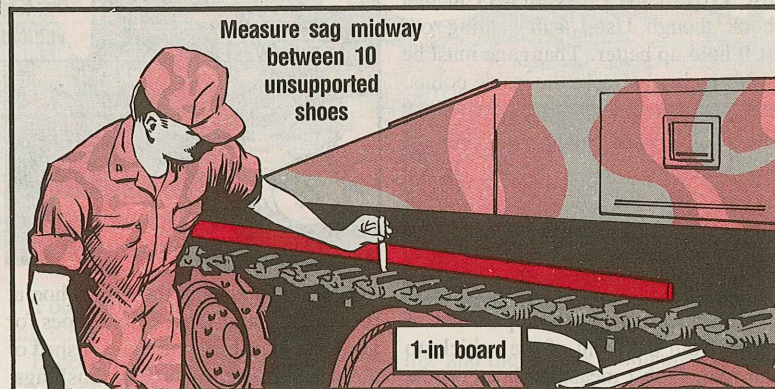
Replace worn or missing pads

## Track Tension Inspection

- Move the vehicle forward on a hard, level surface and coast to a stop without using the brake. Move the shift lever to neutral. Clean out the mud and crud

from the track shoes on the outboard side. Clean out the track shoe pin holes, too.

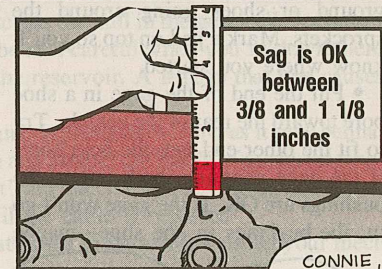
- Put a 1-in thick board (or a jack handle) between the track and the second roadwheel.



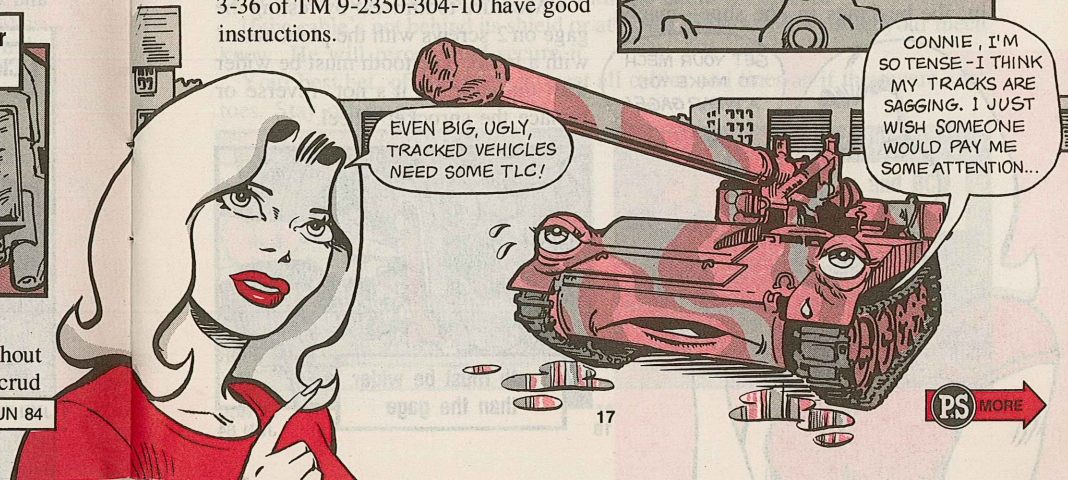
Measure sag midway between 10 unsupported shoes

1-in board

- You'll need a piece of wood or steel at least 4 feet long to use as a straight edge. Measure sag midway between 10 unsupported track shoes. Sag should be between 3/8 and 1 1/8 inches. If inspection shows adjustment is needed, go by your -10 TM. Pages 3-35 and 3-36 of TM 9-2350-304-10 have good instructions.



Sag is OK between 3/8 and 1 1/8 inches

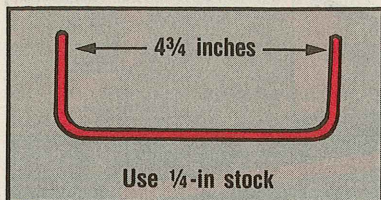


EVEN BIG, UGLY, TRACKED VEHICLES NEED SOME TLC!

CONNIE, I'M SO TENSE - I THINK MY TRACKS ARE SAGGING. I JUST WISH SOMEONE WOULD PAY ME SOME ATTENTION...

## Track Shoe Bushing Wear

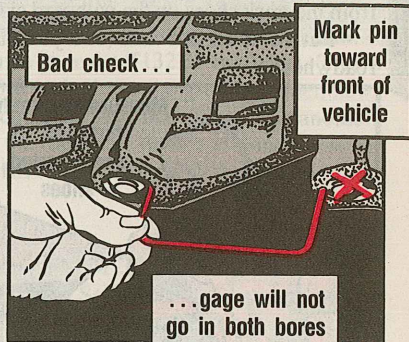
• If you don't already have one, get your mech to make a shoe bushing wear gage. TM 9-2530-200-24 tells how to make one on Pages 3-5 and 3-6. Don't use 1/16-in stock like it says in that book, though. Use 1/4-in welding rod. It'll hold up better. That gage must be 4 3/4 inches between the inside points.



• Start measuring the top strand of shoes from the front of the vehicle to the rear. Don't measure shoes on the ground or shoes going around the sprockets. Mark a pad on top so you'll know where you started.

• Put the end of the gage in a shoe bore toward the rear of the vehicle. Try to fit the other end into the next bore. If the gage goes into both bores, the bushings are OK. If the gage won't go in, the bushings in one shoe—maybe

both—are bad. Mark the pin toward the front of the vehicle with chalk. Check both tracks before making any repairs.

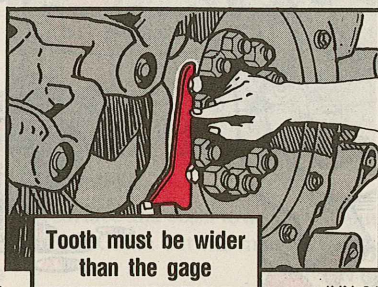


• Now disconnect the track shoe at the marked pins. Check both shoes for gouged-out or loose rubber, crushed or deformed shape, or rotating bushings. If you find any of these defects, replace the bad shoe.

## Sprocket Inspection

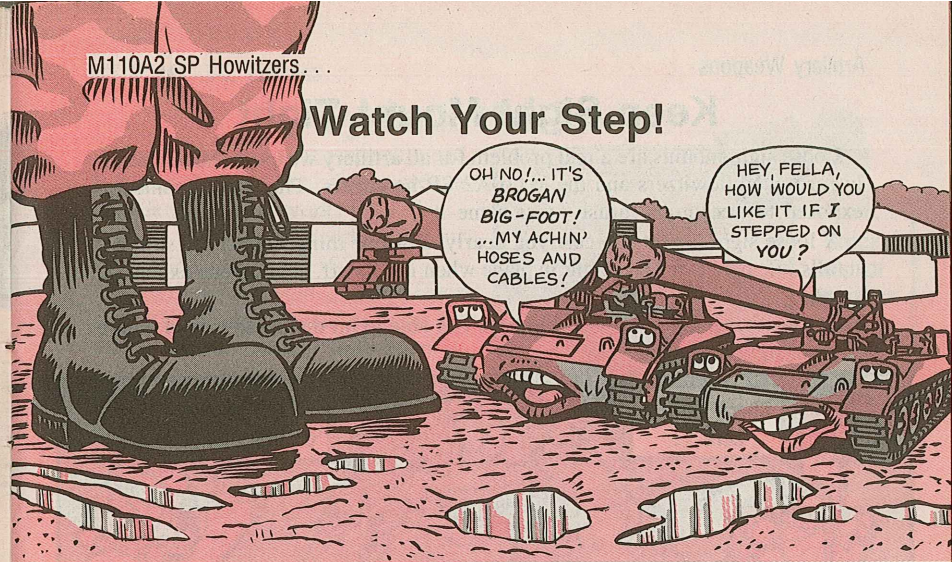
• Use the sprocket wheel tooth wear gage, NSN 4910-00-842-3051, that comes as a special tool in your vehicle's -20P TM.

• Measure tooth wear by resting the gage on 2 screws with the point alined with a tooth. The tooth must be wider than the gage. If it's not, reverse or replace the sprocket wheel.



M110A2 SP Howitzers...

## Watch Your Step!



You can save lots of work and a big mess, not to mention money, by watching where you put your feet.

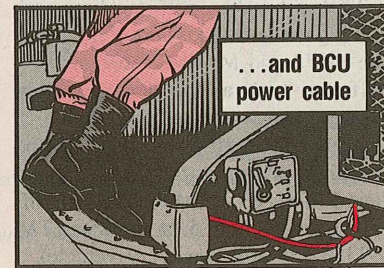
Especially around the main hydraulic line and the Battery Computer System (BCS) power cable.

The hydraulic line runs unprotected across the hull in the gun well. It doesn't stand up well against a heavy foot. So be real careful when you're down there checking the hydraulic pump filter or the reservoir. A leak in that line causes a big mess and wastes fluid.

The BCS power cable, on the other hand, is protected as long as it runs behind a shield near the commander's intercom and around the inside of the turret ring. Lying loose on top of the deck, tho, it's no match for feet. One busted power cable means one useless BCS unit until the cable is replaced.

If the cable's not behind its shield or attached to the turret wall, let your mech know. He will reroute and secure it.

Your best bet, of course, is to treat all cables and lines as if they were sore toes. Stay off them!

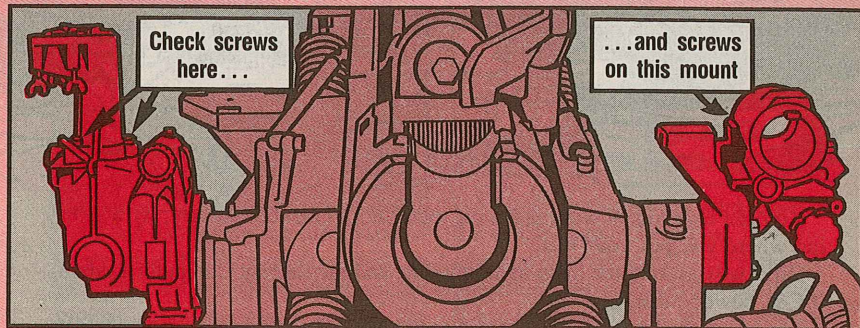


## Keep Sight Mount Tight

Loose sight mounts are a real problem for all artillery weapons, but especially for towed howitzers and the M110A2 SP howitzers. The sight mounts are exposed to tree limbs, brush—you name it.

A loose sight mount can cost you dearly. For one thing, it may get so loose it falls off. And if it has a sight in place when it falls off, scratch one expensive sight.

For another thing, you probably won't be able to hit the broad side of a barn if your sight mount is loose.



Make sure all your sight mounts have lockwashers under the cap screws. Vibration on artillery pieces will loosen up ordinary washers.

Finally, make sure your mounts are tight when you emplace your weapon. Do it each time you move.

That way, you'll get where you're going with your sight mounts in place, and you'll stand a much better chance of hitting your target.

## Headlight Base Does Exist

That part-rubber, part-steel base your headlight mounts to is sort of hidden in the M578 and M110A2 -20P's.

If you look at the dual headlight figures, you won't see the base.

You will find it as part of the headlight wiring harness. Check out Item 5 of Fig 83 in TM 9-2350-304-20P (howitzer) or Item 5 of Fig 85 in TM 9-2350-238-20P (recovery vehicle).



## Eyeball the Lock

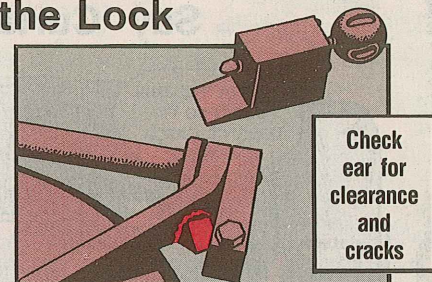
You drivers can save yourself a bad bump on the head by making sure the outside hatch lock works OK.

If the lock doesn't work, get your mechanic to fix it.

Eyeball the ear welded on the hatch arm. It's the part that catches under the lock when the hatch is fully open.

There's very little clearance between the ear and the mounting bracket. If the bracket loosens—or if the hatch shifts a little—the ear can hang up on the bracket. That'll weaken the weld.

The ear can break off if the weld gives way. If that happens when you



think the hatch is locked open, it can fall on you.

Report any trouble with the hatch lock or the locking ear to your organizational maintenance right away. Save yourself a big headache.

## Traversing U-Joint Rust

If traversing your M198 towed howitzer has become a heavy-duty job, you may have a rust problem.

Seems rust can build up at the 3 U-joints on the traversing rod between the hand crank and the gear drive.

Since there's no lube requirement for the joints, you won't know you've got a rust problem until binding starts.

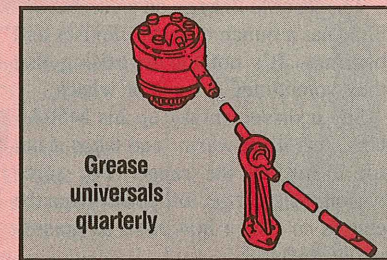
TB 43-0001-36-1 (Apr 83), tho, gives your mechanic the go-ahead to lube the 3 joints quarterly, like so:

- Remove the 2 access covers from the top carriage. Be careful not to damage the gaskets.



- Apply a light coat of GPG (general purpose aircraft grease) to the 3 universals.

- If a gasket is damaged, replace it with NSN 5330-01-030-8766. Then put back the access covers.



## Say 'Curtains' to Fire



Personal gear tossed just anywhere in the cargo area of an M548 is not only messy, it's dangerous.

That stuff can shift forward during a cross-country run and cause a fire.

The canvas curtain surrounding the cargo area is not fireproof. If gear or cargo shifts forward, it can push the curtain up against the exhaust stack. The situation is even worse if the curtain is not tied down good and tight.

Be sure all your cargo is tied down so it won't shift. Then, be mighty sure your canvas curtains are tied down right, too.

That way, the only time you'll hear "Fire!" is when your outfit gets the order to put steel on target.

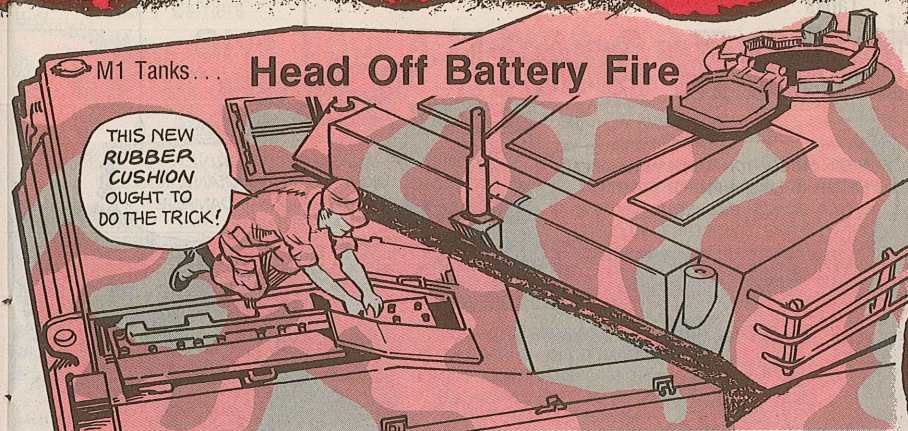
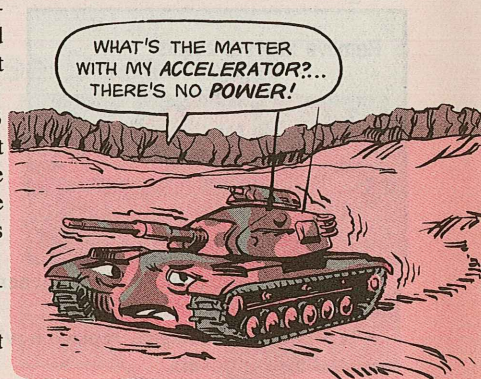
Combat Vehicles...

## Check Out the Linkage

The throttle linkage on a combat vehicle has a bunch of rods, clevises and bearings. It's not too surprising that they sometimes get out of whack.

Say a driver cranks up his M60A3 tank, lets it get warm, and takes it out for a run on the range. For some reason, he can't get full power from the engine no matter how hard he presses the accelerator.

It could be a problem with the throttle linkage, which you can fix no sweat. So always check out the linkage first when loss of power is reported.



## M1 Tanks... Head Off Battery Fire

One more check in the battery compartment of your M1 tank can go a long way toward preventing a fire.

When you're in the compartment making your before-operation PMCS, look at the base of the positive bus conductor.

Make sure there's a rubber cushion under the conductor and that it's tightly attached. If the cushion is missing, the conductor can work loose and rub against the battery retainer.

This rubbing wears off the retainer insulation, resulting in an electrical short—and a fire.

Let your unit maintenance know if the cushion is missing or loose. They'll put on a new conductor, NSN 6150-01-083-5700, if it's missing.

## Fire Extinguisher Switch

You M60-series tank crewmen can forget that old recharging routine on the 5-lb portable CO<sub>2</sub> fire extinguisher, NSN 4210-00-270-4512.

Next time the extinguisher is due for recharging, turn it in and replace it with the 2.75-lb CF<sub>3</sub>BR extinguisher, NSN 4210-00-555-8837. It's the preferred one for your vehicle and will soon show up as part of your BII. It doesn't need recharging, which makes it more reliable than the old type extinguisher.

# Too Close For Comfort!

A 50- OR 60 -TON TANK WITH A BENT FENDER IS LIKE A PRIZE FIGHTER WITH A BLACK EYE. YOU WONDER WHAT SHAPE THE OTHER GUYS IN!

WHAT KIND OF DRIVER WOULD CRUNCH A TANK INTO SOMETHING AND DAMAGE A FENDER?

WHAT KIND OF GROUND GUIDANCE DID HE GET? WHAT KIND OF OPERATION GUIDANCE DID HE GET? IS SMASHING FENDERS A MACHO THING?

SINCE WHEN DID TANK DRIVING BECOME A CONTACT SPORT?

WE SIMPLY DON'T KNOW THE ANSWERS. IF ANYONE OUT THERE DOES, PLEASE LET US KNOW!

MEANWHILE, DRIVE CAREFULLY. ONE THING FOR SURE: BENT FENDERS ARE A LOT EASIER TO AVOID THAN TO EXPLAIN!

## Transmission Torque Change

TM 9-2350-253-20-1 for the M60A3 tank gives you the wrong torque value on low and reverse servo band adjustments for the transmission. Torque the adjusting screw to 30 lb-ft. Then, back off the adjusting screws 5 or 6 flats (about a full turn). Torque the adjusting screw locknut to 150 lb-ft.

# Give Your 4.2-KW S-A-C Time

WHEW! I SPENT A MORNING MAKING THIS GENERATOR COMFORTABLE!

BUT WE JUST GOT WORD TO MOVE OUT!

Units operating the 4.2-KW generator in hot weather have found out the hard way that it needs all the cooling it can get!

You can help your generator keep its cool by giving it some S-A-C time. The key words are Shade, Air and Clean.

### Shade

When your generator is off the M577 command post carrier, put it in any shade you can find. If you have to, rig a tarp to shade it. Even the shade of your M577 carrier is better than nothing.

### Air

Air has to flow around your generator set to carry off heat. When the generator's mounted on your M577, don't block the flow with gear piled around or on it.

If you sandbag the set for protection when it's off the carrier, leave room for air to flow. You need about 4 feet be-

tween the generator and the wall on all sides. Place the set so that the side opposite the fuel tank faces the entrance.

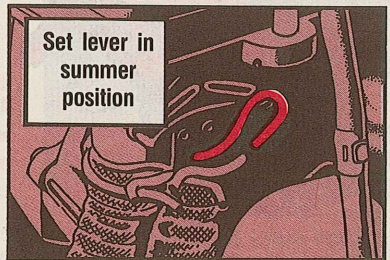
### Clean

You have to keep the set clean, too. Dirt is like insulation. It holds heat in. Clean out any dirt or trash that's blocking air passages. Wipe off any spilled oil that'll collect dust.

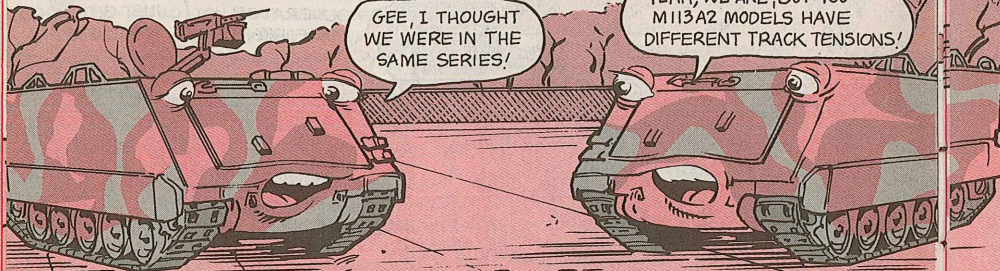
### Other tips

Make sure the engine air shutter lever is set for summer operation.

Keep the oil level up. Low oil will make the engine overheat.



# Track Tension



There are 2 different track tension measurement procedures for M113-series carriers.

You adjust tension for the M113A1 family (except the M548 and the M730) by one method. You adjust tension for the M113A2 family (plus the M548 and M730) by a different method.

And, you need a little more information than you can find in TM 9-2300-257-10 to make the checks. It doesn't

give any info at all about the M113A2 adjustment procedures.

Until TM 9-2350-261-10 (for the M113A2 family) comes out, here's all you need to know about adjusting track tension on both families.

To check the track tension on M901 and M901A1 Improved TOW vehicles, see your TM 9-2350-259-10. Change 4, Pages 3-44 and 3-44.1, has the info.

## M113A1, M577A1, M106A1, M215A1, and M741

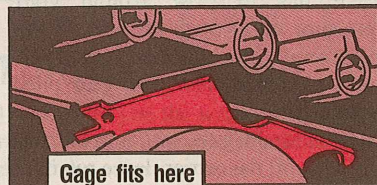
You need the track and sprocket gage, NSN 5120-01-041-9920, in the BII to check track tension.

**Track and sprocket gage,  
NSN 5120-01-041-9920**



Drive your carrier onto smooth, level ground and let it coast to a stop without using the brake. Remove the track shrouds.

Put the gage on top of the 2nd roadwheel. Adjust the track tension until the bottom of the track rests on the 3rd roadwheel and also touches the gage.



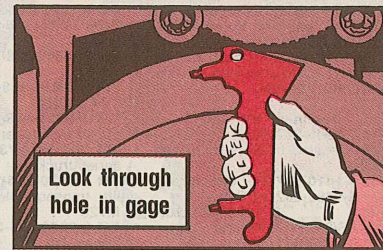
Gage fits here

# Checks Differ

## M113A2, M577A2, M106A2, M125A2, M548, M548A1, M730 and M730A1

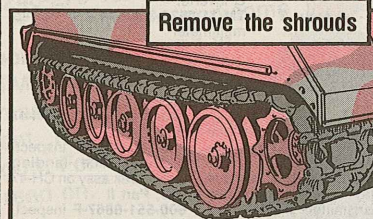
You can use the track and sprocket gage or the handle of the track pin punch in your carrier's tool bag to check the tension.

Again, drive your carrier onto smooth, level ground and coast to a stop without using the brake.



Look through hole in gage

If you use the track pin punch handle, put it between the top of the 2nd roadwheel and the bottom of the track.



Remove the shrouds



Fits in freely?  
Tension is OK!

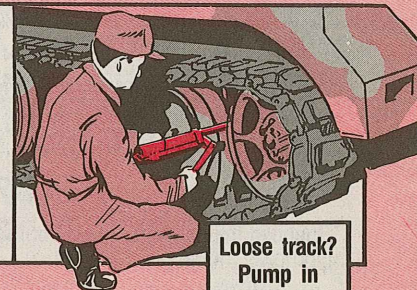
If you use the gage, place it so that the lug with the hole through it is resting against the bottom of the track at the centerline of the 2nd roadwheel.

Adjust the track tension so that the track rests on the 3rd roadwheel and the surface of the 2nd roadwheel can be seen through the 1/4-in hole in the gage.

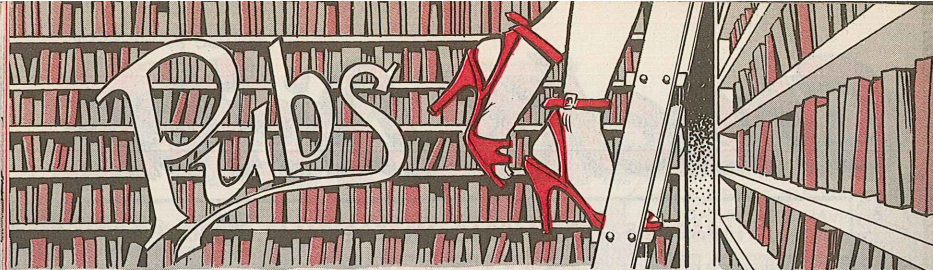
If the handle can be put in freely and the track touches the top of the 3rd roadwheel, tension is OK. Otherwise, adjust track tension until the handle fits freely and the track touches the 3rd roadwheel.

## Adjusting Tension

**If your track is too loose, pump GAA into the lube fitting on the track tension adjuster to tighten up the track. If your track is too tight, bleed grease through the pressure relief valve.**



Loose track?  
Pump in  
GAA!



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.

**Technical Manuals**

TM 9-1040-267-20&P Launcher, grenade, smoke; M243, M257 and M259  
 TM 9-1410-587-24P Chaparral  
 TM 9-1425-602-12 Patriot  
 TM 9-1425-625-20P AN/GSG-11(V)2, Roland  
 TM 9-1425-631-20 Roland

TM 9-1430-625-20-2-2 Roland  
 TM 9-1430-1528-24P AN/MPQ-55 HAWK  
 TM 9-1430-1533-24P AN/MPQ-57 HAWK  
 TM 9-1430-1536-24P OF-179/TVY HAWK  
 TM 9-2320-269-10 Truck, telephone maintenance, M876  
 TM 9-2320-273-10-HR M915-series trucks  
 TM 9-2330-285-14&P Dolly set, lift, transportable shelter, 3-ton, M720  
 TM 9-2350-255-20-1-2-1 thru -3 Tanks, M1

TM 9-2350-272-10 M973 small unit support vehicle (SUSV)  
 TM 9-4935-600-24P-1 Patriot  
 TM 9-4935-600-24P-5 Patriot  
 TM 9-4935-625-20P Roland  
 TM 9-6920-480-24P-1 Dragon L.E.T.  
 TM 9-6920-485-20P Lance  
 TM 10-3930-237-20P Forklift, 2,000-lb, Clark Model  
 TM 11-4940-238-24P-1 AN/ASM-146B,C, -147B electronic shop  
 TM 11-6130-426-13&P PU-724A/G inverter  
 TM 11-6625-3052-14 AN/PSM-45 millimeter

**AUDIO-VISUAL STUFF**

Available at battalion or post Learning Center

**Films, TV Tapes**  
 TF 3-6261 Decontamination Site Reconnaissance  
 TVT 5-75 Perform starting and stopping a crawler tractor  
 TVT 5-76 Check switches and controls on a crawler tractor  
 TVT 5-77 Cutting, stockpiling, filling and leveling operations with crawler tractor  
 TVT 5-82 Starting and stopping a wheeled tractor-scraper  
 TVT 5-83 Check switches and controls on a wheeled tractor-scraper  
 TVT 5-84 Loading a wheeled tractor-scraper with pusher assistance.  
 TVT 5-85 Loading and spreading operations with a wheeled tractor-scraper  
 TVT 5-96 Perform visual inspection and check fluid levels on a wheeled tractor-scraper  
 TVT 9-78 Intro to M109A2/A3 SP howitzer cab electrical system  
 TVT 55-124 Duties of a CH-47 flight engineer/crew chief, preventive maintenance daily, Part 1

TVT 55-125 Duties of a CH-47 flight engineer/crew chief, preventive maintenance daily, Part 2  
 TVT 55-126 Duties of a CH-47 flight engineer/crew chief, preventive maintenance daily, Part 3

**TEC Lessons**

010-071-1217-F Use visual signals to control movement (mounted), Part I  
 020-171-5719-A Boresight main gun on an M60A3 TTS tank  
 041-061-5854-A Load howitzer ammunition on vehicles and store at howitzer site  
 141-093-6801-A Prepare DA Form 2402 and DA Label 80  
 140-093-6805-A Prepare DA Form 2404  
 242-301-6749-A Select river crossing sites  
 411-051-8967-F MAP recasting  
 600-551-8836-F Remove and install forward fuel cell on AH-1S  
 600-551-8837-F Remove and install aft fuel cell on

AH-1S  
 600-551-8838-F Service rotary wing head on CH-47C  
 600-551-8839-F Remove and replace fuel quantity transmitters on AH-1S  
 600-551-8841-F Remove engine assembly on CH-47  
 600-551-8843-F Replace CH-47 cargo and rescue winch  
 600-551-8845-F Remove forward fuel cell on UH-1  
 600-551-8846-F Install forward crashworthy fuel cell and sump assy on UH-1D/H  
 600-551-8851-F Inspect engine fire detection elements and replace fire extinguisher bottles on CH-47  
 600-551-8854-F Inspect DCP and rig thrust control balance and detent capsule  
 600-551-8862-F CH-47 landing gear wheel assembly, Part I  
 600-551-8863-F CH-47 landing gear wheel assembly, Part II  
 600-551-8867-F Inspect, repair/replace landing

gear brake assy on CH-47 B/C, Part I  
 600-551-8866-F Inspect, repair/replace landing gear break assy on CH-47 B/C, Part II  
 600-551-8867-F Inspect, repair/replace landing gear brake assy on CH-47 B/C, Part III  
 600-551-8871-F Rig collective control system on AH-1S  
 602-551-9401-F Replace OH-58 tail rotor gearbox output seal, sight gage and filler plug packing  
 612-051-9675-E Trouble-shooting the automotive type cooling system  
 612-051-9678-E Adjustments and trouble-shooting of the 250 CFM air compressor  
 612-051-9679-E Trouble-shooting the 290M wheel tractor air brake system  
 646-551-9252-F Prepare M28A1/M28A2 for distant aiming point method of boresighting  
 730-051-8409-F Basic winching procedures and light pull winching

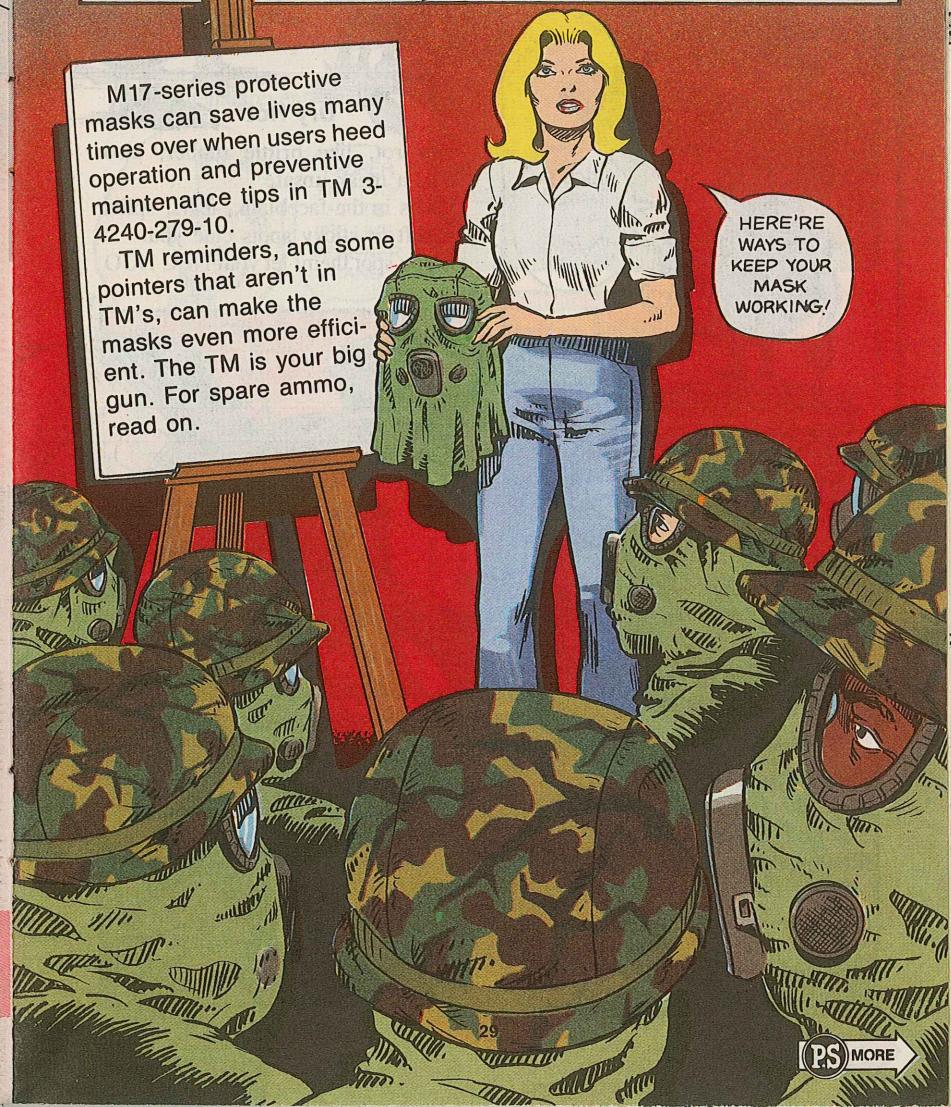
M17-Series Masks

# From Dry Rot to Valve Jobs

M17-series protective masks can save lives many times over when users heed operation and preventive maintenance tips in TM 3-4240-279-10.

TM reminders, and some pointers that aren't in TM's, can make the masks even more efficient. The TM is your big gun. For spare ammo, read on.

HERE'RE WAYS TO KEEP YOUR MASK WORKING!



## AT-271 Cord

Snapped the cord that holds your whip antenna together? Get another with NSN 4020-00-281-8439.

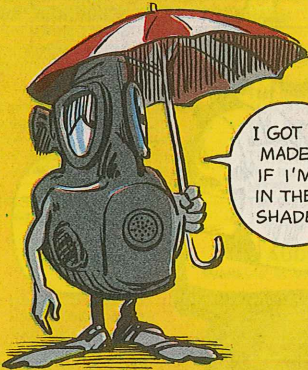


### Storage

Store masks in cool areas when you can. Below 70°F is best.

If you keep your mask, keep it out of truck cabs and car trunks.

Warm days bake the rubber, crack it and ruin protection.



I GOT IT MADE...  
IF I'M  
IN THE SHADE!



UNMASK  
BAD PM!

### More Storage

After you use your mask, keep filters in place.

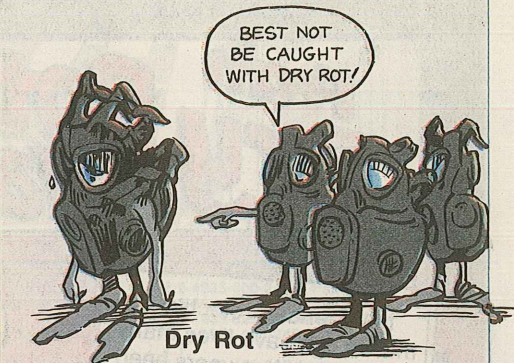
Store it in your carrier, filters and all.

When the mask is replaced, the filters go with it.

Filters in place prevent a permanent set and make for a better fit.



Keep filters in!



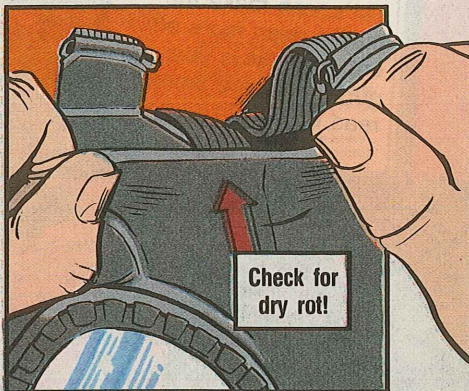
BEST NOT  
BE CAUGHT  
WITH DRY ROT!

### Dry Rot

Dry rot, like brittle rubber, also makes a mask unsafe.

Holes in the faceblank, tears, splits and soft or sticky spots clue you.

If you spot them, let your NBC NCO know.



Check for  
dry rot!

### The Fit's the Thing

Fitting the hood over your mask the right way also prevents creases and set.

Align the black lines on the hood with the dent on each mask eye ring.

The dents are top-centered on the eye ring.

Alinement prevents leaks.



PROPER  
FITTING  
HOODS  
ARE LIKE  
DESIGNER  
JEANS...

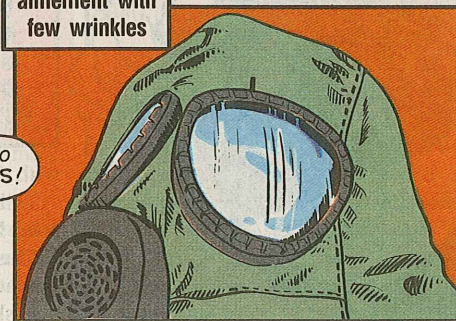
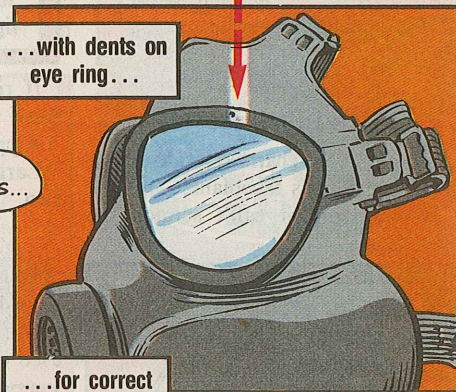
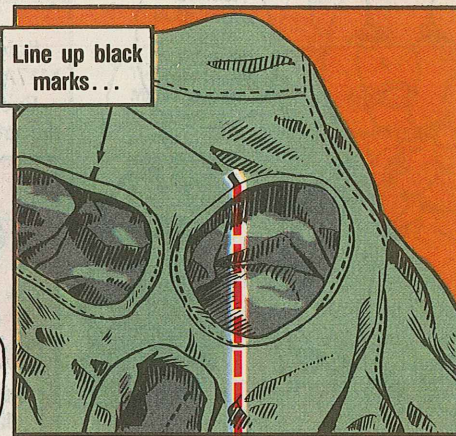
... NO  
WRINKLES...

... AND NO  
CREASES!

Line up black  
marks...

... with dents on  
eye ring...

... for correct  
alinement with  
few wrinkles





### Head Harness

Stow your head harness inside or outside your mask's faceblank.

Just be sure it can't scratch the eyelenses.



### Something Extra

Soldiers with the new, extra small M17A2 have an extra before-use check.

Eyeball the loose rubber flap inside the faceblank for rips or tears.



If rips go through the rubber, the mask will leak.

Ripped? Turn it in.

Larger M17A2's do not have the flap.

### Valve Talk

Tails on outlet valve disks of the M17 and M17A2 models are used as is.

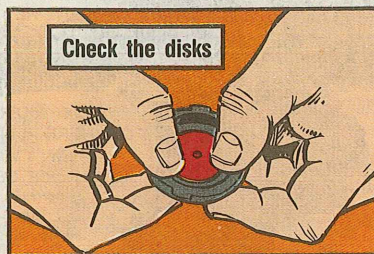
The tails have to be cut off disks used with the M17A1. They interfere



with the resuscitation valve assembly.

Tail-cutting is now a job for your NBC NCO. The TM is being changed.

Mask users still make before-operations checks on all valve disks. Disks must be there.



They should turn when you rotate them. They can't be curled, discolored or dirty.

If the disks are stuck, curled, discolored or missing, get them replaced.

### It's a Must

Bloom, that powdery white or tan stuff on your mask, belongs there.



No scraping, scrubbing, oiling or washing will remove it permanently, but that action can damage your mask.

### Keep It Clean

The ways to clean and sanitize your mask are spelled out in your TM. Homemade methods or shortcuts will damage it.



Another caution: Remove filter elements before you dunk your mask in water.



Substitute cleaners on the eyelenses can scratch or discolor them.

Use plastic polish NSN 7930-00-634-5340 on the eyelenses.

### Carrier and Harness

Permanent name or unit markings on your mask carrier are not permitted.

If you've got to mark the carrier, use a tag or tape. That way, there's no problem when the carrier's reissued.

Your harness saves your head. Be sure it'll do the job.

Cuts and tears are bad news. So is a strap which won't flex.

Your All Purpose Lightweight Individual Carrying Equipment doesn't exactly reduce the weight of the load you're humping—but it sure makes it easier to carry. When it's hanging in there doing its job, it takes a big load off your mind. Equipment failure in the field can ruin your whole day!

TM 10-8400-201-23 is your PM guide.

### Keep It Clean

Use a flat stick or dull instrument to scrape off any caked-on or dried-in mud or dirt. Never use anything sharp that will damage the fabric.

SCRAPE ...



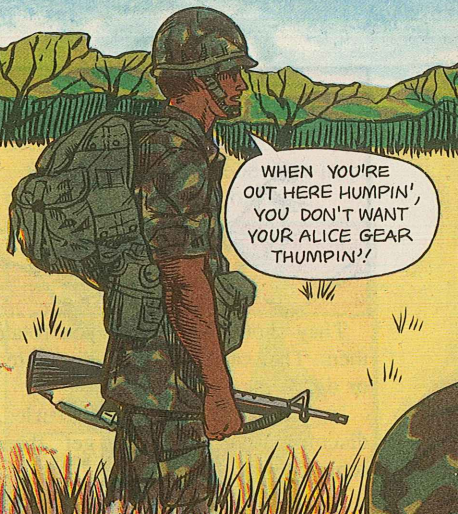
After scraping off the big-stuff, brush the area with a soft brush or cloth.

...AND RUB...



Dip the equipment—any part that's dirty—several times in a pail of warm soapy water. Use a mild detergent. NSN 7930-00-929-1221 (25-lb drum) does a good job no matter how hard or salty the water.

...AND DIP!



★OUCH!

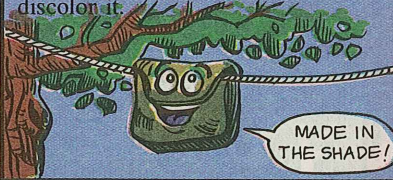
If soiled spots remain after washing, scrub with a white or colorfast cloth. Dip again. Always hand launder ALICE. Never use a commercial washer—and, above all, never use chlorine bleach, yellow soap or cleaning fluid for cleaning. This will discolor it.



Rinse thoroughly with clean, warm water until all traces of detergent are gone.



Dry ALICE in the shade or indoors. Never use a commercial dryer. Direct sunlight, heat or open flame will discolor it.

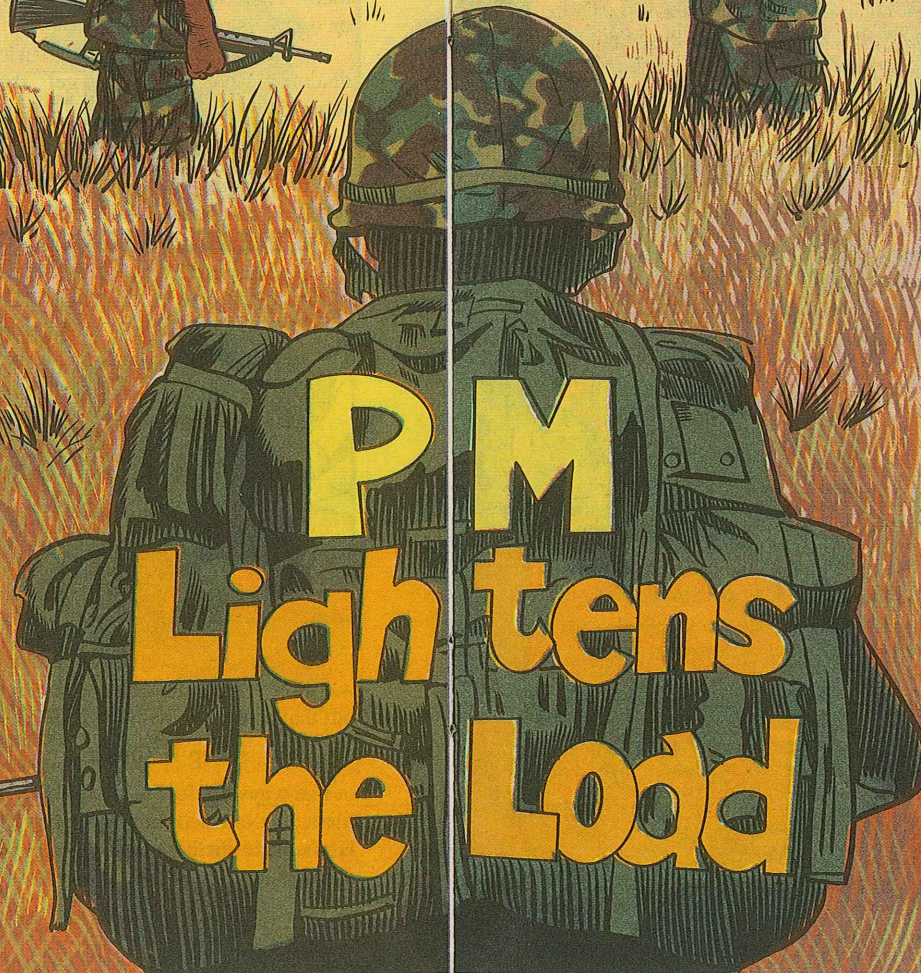


### PM Checks

Keep a sharp lookout for wear spots—any place where metal or plastic rubs against the fabric.



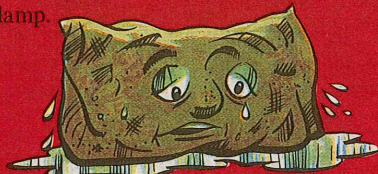
Keep dirt, leaves, rocks, gravel, and other junk out of the pockets, creases, folds and stitched areas.





### Care Of Liners

Your liners need special care also. Keep them clean and dry. Do not put them away when they are dirty or damp.



Clean liners with a damp cloth. If the damp cloth doesn't clean them, hand wash using a mild detergent. Never machine wash. Rinse thoroughly.



Air-dry them in the shade. Never dry liners in a dryer. Drying in direct sunlight, heat or open flame will cause them to crack.



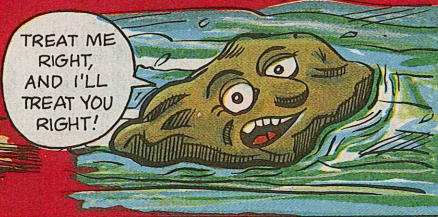
Never pack any items with sharp, hard corners or edges in the liners or in the liner pockets. They'll punch or wear holes in the fabric. Put only those items that need special protection in the waterproof liners.



Never use any kind of tape to secure liners. It peels off the coating when it's removed.



Remember, the liners can be used as a flotation bladder in an emergency. So take extra care of them and someday they may return the favor.



### 5-Dram Samples Needed!



The 5-dram (5/8-oz) bottle is the only one you use for aircraft oil samples. That's because using a 3-oz or larger container may take up to half the lubricant in some aircraft components.

Draw 3 oz, for example, of the 42° gearbox in the UH-1 and you could be gearing up for trouble. That system only holds 6 oz of lubricant. If you fly that bird without replacing the oil you drew out, the parts could wear out too soon or fail altogether.

But just putting in more lubricant doesn't help. If you add oil too many times to the reservoir between 25-hour samplings, the lab won't be able to detect a trend toward excessive component wear or failure.

So use the 5-dram bottle, NSN 8125-00-933-4414, and you can pick up a couple of other advantages, too. Like—

- \$\$ savings. The 5-dram container costs about 10 cents, compared to 22.5 cents for a 3-oz bottle.

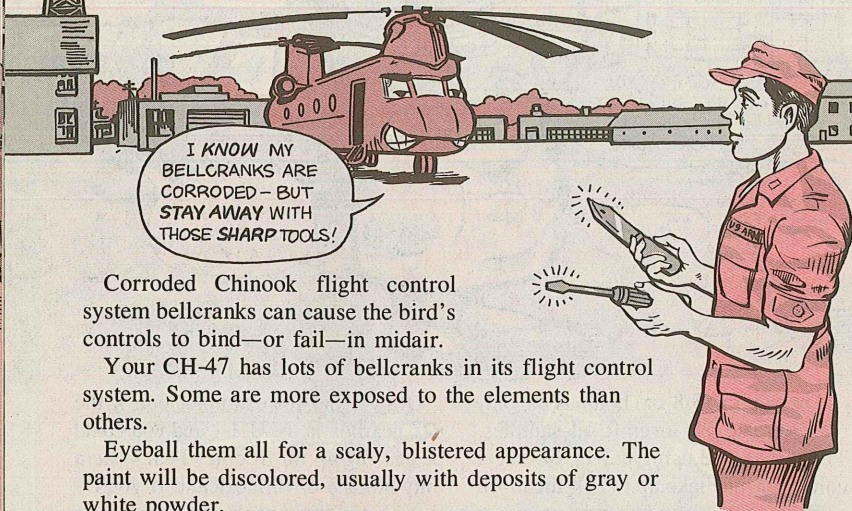
- Time savings. Lab people can quickly spot the small amber bottle. That's important, 'cause aircraft samples get priority treatment in all labs.

So, bird mechs, cram your 5-dram samples into those amber bottles—and keep them coming!



CH-47...

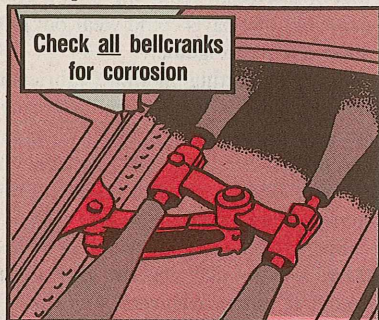
## Don't Be a Sharpy!



Corroded Chinook flight control system bellcranks can cause the bird's controls to bind—or fail—in midair.

Your CH-47 has lots of bellcranks in its flight control system. Some are more exposed to the elements than others.

Eyeball them all for a scaly, blistered appearance. The paint will be discolored, usually with deposits of gray or white powder.



No corrosion is allowed. If you spot it, the bellcrank has to be cleaned and treated. You may be able to do the job without removing the part.

But never use knives, screwdrivers or other sharp tools to check bellcranks for corrosion. You'll scratch the part and remove the protective finish. The result is more corrosion.

Treat corrosion, scratches, gouges and other minor damage according to Para 11-119 in TM 55-1520-227-23-4.

## AVIATION MESSAGES

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

**OV-1-84-02** SOF Technical, OV-1B series, inspection of forward and aft SLAR attachment fitting. 171745Z Feb 84.

**U-21-84-01** SOF Technical, U-21A/G and RU-21D/H series, inspection of aft-facing seats. 271600Z Feb 84. **Gen-1-84-01** SOF Maintenance Mandatory, Night vision goggles, AN/PVS-5A. 071400Z Feb 84. **MIM-AH-1-MEM-84-03** AH-1S (ECAS, PROD, MC) engine

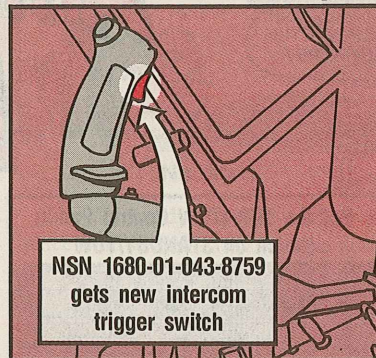
pressure torque transducer item replacement procedures, 101330Z Feb 84. **MIM-CH-54-84-MEM-01** CH-54A/B landing gear struts 161415Z Feb 84. **MIM-U-21-84-MEM-01** U21A voltage regulator. 071415Z Feb 84.

UH-1 Series...

## Trigger Switches NSN



Use NSN 1680-01-043-8759 to get a replacement intercom trigger switch for your Huey's cyclic stick. It's shown as Item 12, Fig 353 in TM 55-1520-210-23P-2. The NSN doesn't show up on the AMDF, so use a DD Form 1348-6. Note in the Remarks block that the NSN is not on the AMDF.



The RIC (Routing Identifier Code) for this \$7.76 item is FPZ. Use the highest priority you can justify.

The RIC (Routing Identifier Code) for this \$7.76 item is FPZ. Use the highest priority you can justify.

Don't try to replace your trigger with NSN 5930-00-176-0193 (part of cyclic stick, Item 26, Fig 352). The two items aren't interchangeable.

It takes a little extra effort to order the right trigger. But it's a heap cheaper than replacing the entire grip assembly control at \$348 a whack!

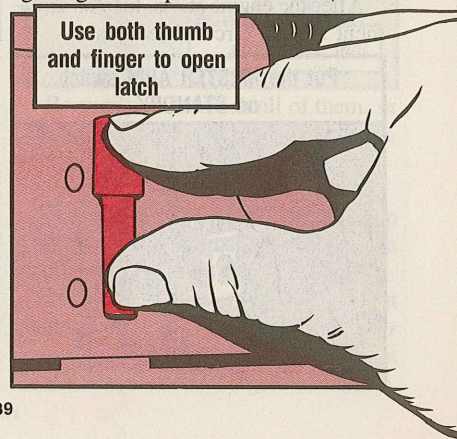
Kiowa...

## Cowling Latch PM

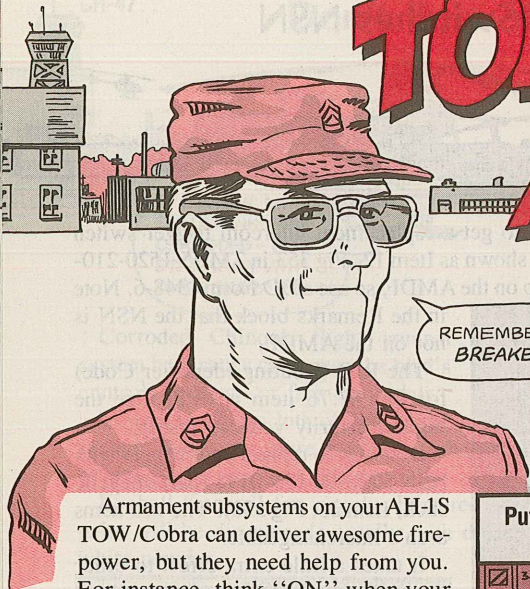
Opening the OH-58 latches the right way can stop maintenance downtime and parts replacement. Could keep you from getting a steel-punctured thumb, too!

If you pop open the engine cowling side panel latches with a tool or your thumb, you'll damage the bird when the spring-loaded latch hits the cowling skin or the cotter pin breaks the latch spring. Next time you open the cowling, you could get a thumb full of steel spring.

Adding a doubler to reinforce the panel is expensive and time-consuming. So, open the latches with both thumb and finger to stop the spring-loaded latch from striking the skin hard or the pin from breaking the spring.



# TOW/Cobra Armament Advice



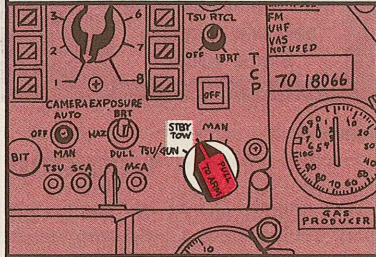
REMEMBER THE BREAKERS!

Armament subsystems on your AH-1S TOW/Cobra can deliver awesome fire-power, but they need help from you. For instance, think "ON" when your aircraft engines are on. Armament system power must be on, or the telescopic sight unit (TSU) will bounce. That means expensive internal damage to the TSU.

So, before you start the engine, push in aircraft AC and DC circuit breakers.

After the engine starts, turn on armament system circuit breakers.

## Put the TCP (TOW Control Panel) switch on STANDBY/TOW



That way you stabilize the TSU... and prevent damage.

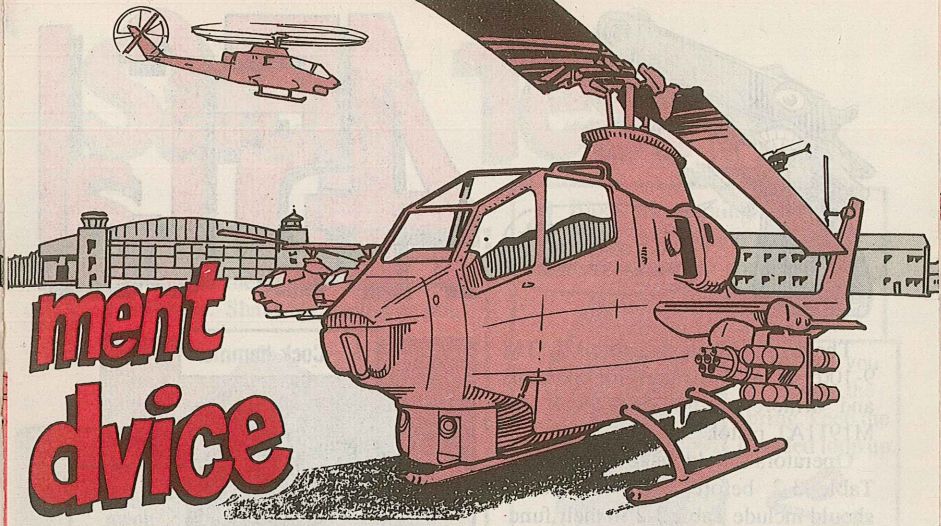
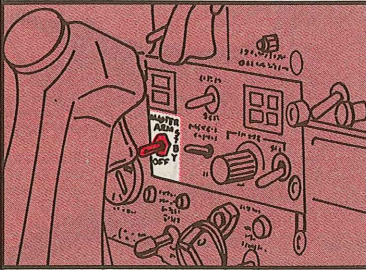
## Hold the Trigger

Another "fingertip" problem-stopper concerns the M134 minigun and 40-MM grenade launcher.

Bursts for either weapon are preset. When you fire them, hold the trigger until the bursts end. The bursts stop automatically.

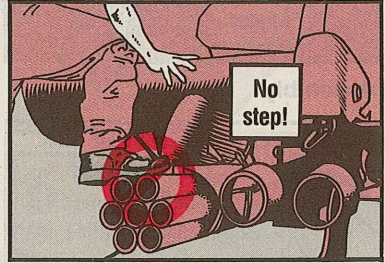
If you pull, jerk or turn loose the trigger before the burst ends, the gun almost surely will jam.

## Put the MASTER ARM switch on STANDBY

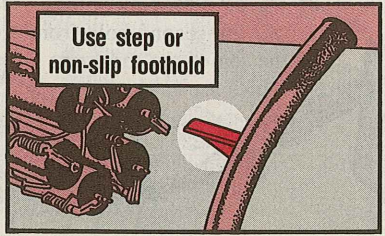


## No Step

They're handy, they're in the right place, but weapons racks on the wings are not steps!!

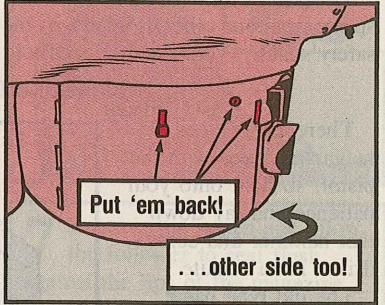


Boots damage rack components! If you're working around or getting on the aircraft, use the steps or non-slip footholds on the struts.



## Fairing Covers

Fairing covers over the weapons' turret have 2 snap fasteners and 2 Dzus fasteners each.



Be sure you put back all of them, or the covers can come off during flight.

## Fire Extinguishers

Hot weather reminder: Do not keep fire extinguishers in cockpits when the temperature climbs above 90°F.

When the sun beats in, the cockpit bakes in that heat, and an extinguisher can explode. Remove it after each flight and store it in the hangar.



YOU GUYS BETTER  
MAKE SURE I PASS  
THE SAFETY TEST!

# .45 Cal

The grip safety test (Table 3-2, TM 9-1005-211-12) is a must for operators and armors who work with the M1911A1 pistol.

Operators should make all checks in Table 3-2 before firing. Armors should include Table 3-2 in their function test. The procedures also are called out on Pages 25-29 of FM 23-35.

Ignoring the safety tests, or forgetting them, invites trouble.

The grip safety test clues you on sear spring wear and other problems. If the safety's faulty, your armorer can fix it.

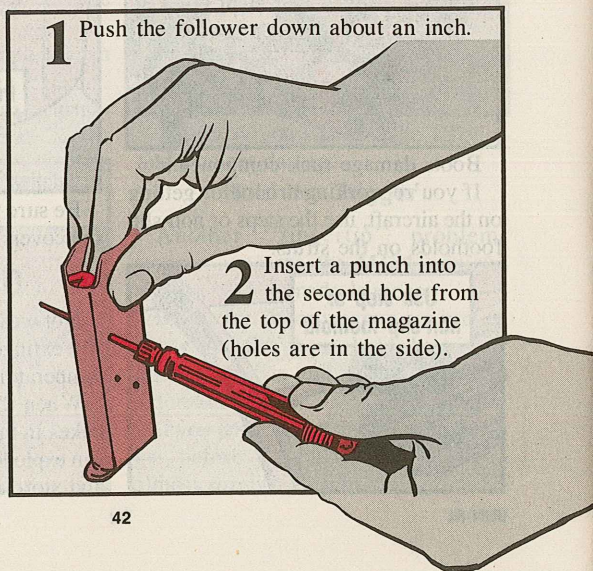
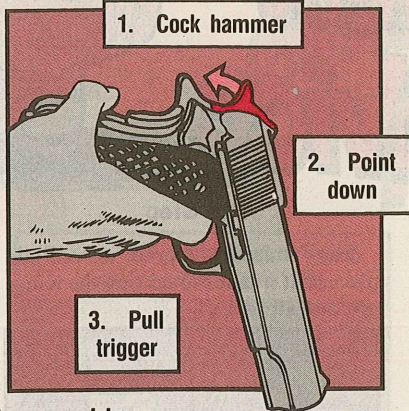
## Magazine Disassembly

There are 2 types of magazines used with the pistol, so hold onto your patience and lay down that hammer and screwdriver for a minute.

The old type has 2 pins in the base. The newer magazine has a welded base.

Some troops pry the lips of the newer one apart to get out the follower and spring. In most cases that makes the magazine unrepairable.

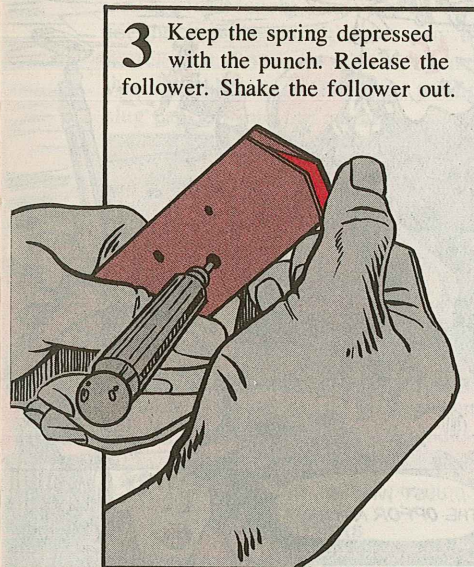
Here's a better way, and it's for both types.



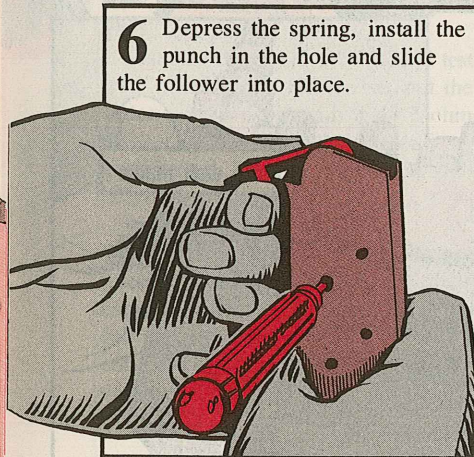
**1** Push the follower down about an inch.

**2** Insert a punch into the second hole from the top of the magazine (holes are in the side).

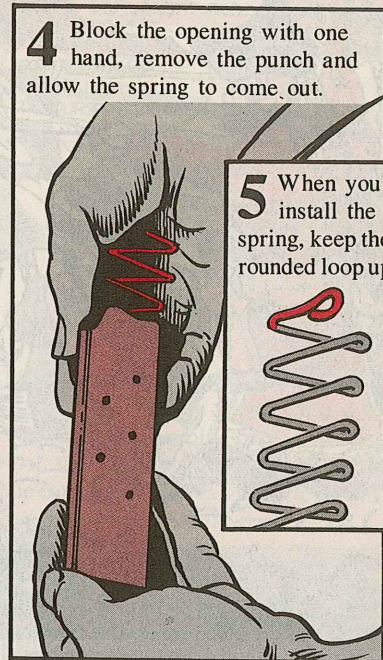
# Safety Test



**3** Keep the spring depressed with the punch. Release the follower. Shake the follower out.

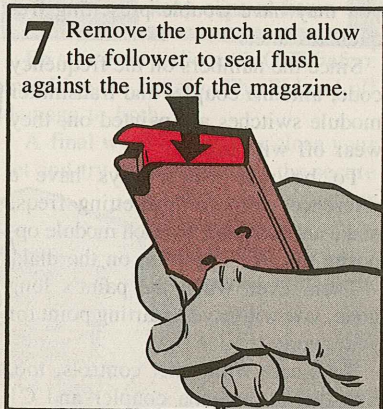


**6** Depress the spring, install the punch in the hole and slide the follower into place.



**4** Block the opening with one hand, remove the punch and allow the spring to come out.

**5** When you install the spring, keep the rounded loop up.



**7** Remove the punch and allow the follower to seal flush against the lips of the magazine.

# ETCH

# MARKS THE SPOT!



'ERE'S WHERE WE'LL BE BURYIN' OUR TREASURE!

...JUST WHO IS THE OPFOR ANYWAY?

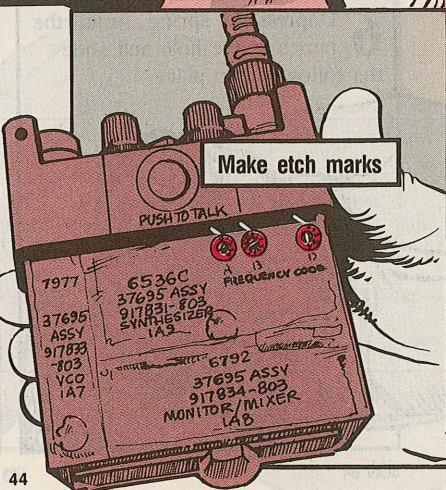
If you aren't making your mark now, you may have trouble presetting frequencies later.

Since the numbers on the frequency code, antenna coupler and transmitter module switches are painted on, they wear off with use.

To be sure you always have a reference point for presetting freqs, make an etch mark on each module opposite the "O" position on the dial.

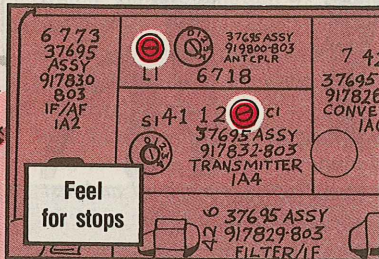
Then, even when the paint's long gone, you will have a starting point for your work.

Take care with other controls, too, like the L1 antenna coupler and C1 transmitter trimmer.



Make etch marks

Use a light touch. You've got to feel for the stops because they're easy to muscle past. Go too far with the L1 and you strip the threads. Then, the tuning slug can fall into the module.



Screw it out too far and it'll catch on the case when you reassemble the radio.

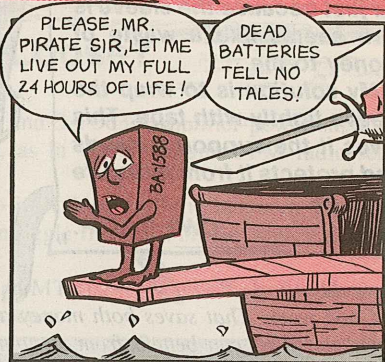
Push past the C1 switch stop and it'll bend. Then it's stuck in that position.

### Battery Hints

Always get the life your BA-1588, NSN 6135-01-094-6536, has to give. That's roughly 24 hours.

Test the battery with the TS-3354 test set if you have it. Otherwise, put the battery under load with a 44.2-ohm resistor, NSN 5905-01-102-3406. A good battery will put out no less than 12 volts.

Watch the connectors. You won't be able to install the battery backwards, but you can make enough contact to reverse polarity and damage the radio set.

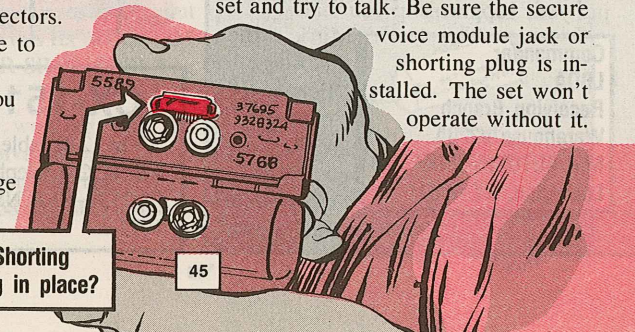


Keep track of the spring clips that hold the shorting plug and alignment tool, too. They can switch over and hit the battery connectors. A shorted—and gassing—battery could result.



Be sure your radio set is OFF before installing the battery. That'll head off damage to both.

A final word before you close your set and try to talk. Be sure the secure voice module jack or shorting plug is installed. The set won't operate without it.



Shorting plug in place?



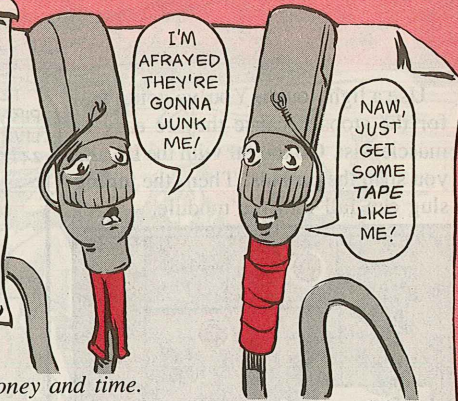
## Put Wrap on Cables

Dear Macon,

Replacing a U-185 connector just because the sleeve is torn seems like a waste of money to me.

My solution is to wrap the sleeve tightly with tape. This gives it the support it needs and protects it from moisture damage.

CW2 R. J. P.



Dear Mr. R. J. P.,

Good work. That saves both money and time.

Other cables can benefit from a taping, too. There are no hard and fast rules for this type of repair, so common sense will have to be the guide.

As long as connections and cables remain tight and waterproof, you should be OK. Watch out for excessive taping or deep cuts in the insulation. Both make your cable a candidate for replacement.

IF YOU NEED A GOOD ELECTRICAL TAPE FOR YOUR FIX, GET A 3/4-IN WIDE ROLL WITH NSN 5970-00-685-9059!



## IM-174A Battery Swap

You can change your radiometer's power source from multiple mercury dry cells to one BA-30 battery by having your support ship your sets to:

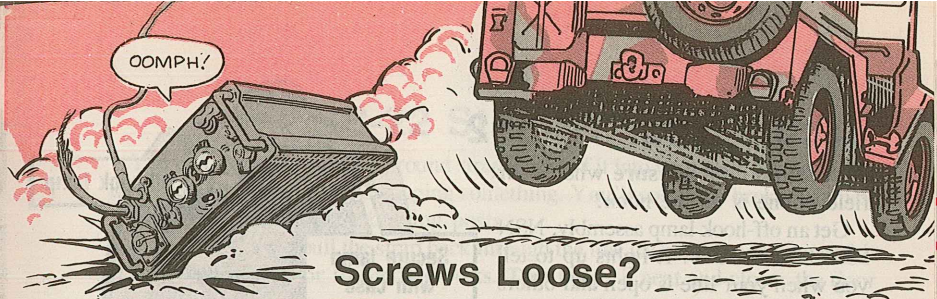
**Commander  
LBDA  
Receiving Branch  
Warehouse #220A  
M/F AUTOSEVOCOM R/R  
Lexington, KY 40511**

Mark the package "For D Cell Conversion" and include a completed DA Form

2407 for each meter.

## CX-1512 Cable

The 12-ft cable called for in your AN/TCC-7 telephone central's TM 11-2139-10 is NSN 5995-00-256-4071.



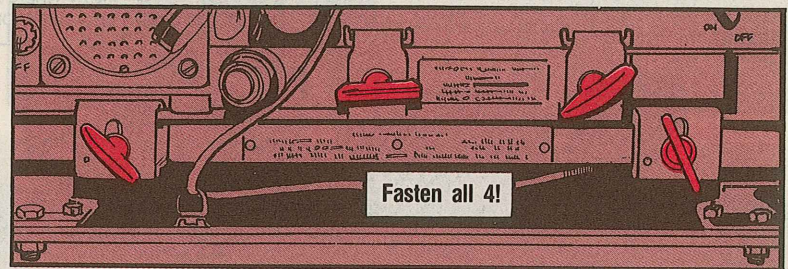
## Screws Loose?

Loose screws mean flying transmitters.

Loose, as in MT-1029, -1898 mount and OA-3633 amplifier-power supply mounting clamp thumbscrews. Flying, as in vehicle-mounted FM radio set components.

Remember, your radio-mounting job isn't done until the mounting clamps are tight. Left loose, the radio gear can jiggle free. It'll hit the vehicle floor, or maybe the road.

Watch the OA-3633. It mounts onto an MT-1029. So, you've got 4 thumbscrews to tighten before everything's secure.

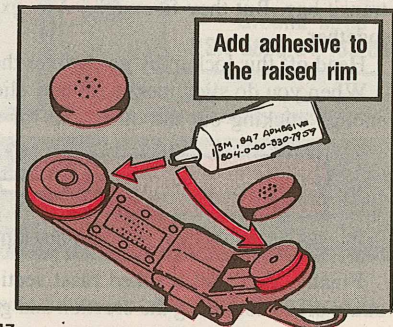


## H-250 Cover-up

Hold the turn-in action on handsets with loose microphone or earphone covers. You unit repairmen can now add a coat of adhesive, NSN 8040-00-390-7959, to the outside of the raised rim on which the covers fit. Apply it carefully, keeping it off the transmitter and receiver elements.

Sure, the H-250 is nonrepairable, but the headshed OK's this fix in CECOM Msg DRSEL-MMR-SR 021830Z Aug 83.

The top shop's working with the manufacturer to solve the problem, so let them know if you find bad sets by sending in an SF 368 Quality Deficiency Report.



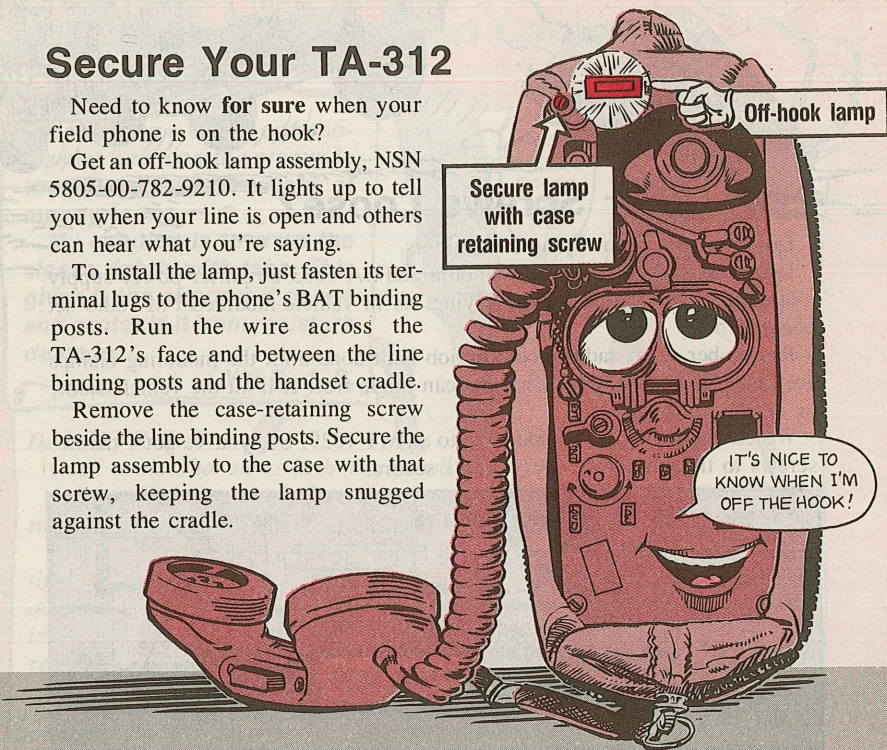
## Secure Your TA-312

Need to know **for sure** when your field phone is on the hook?

Get an off-hook lamp assembly, NSN 5805-00-782-9210. It lights up to tell you when your line is open and others can hear what you're saying.

To install the lamp, just fasten its terminal lugs to the phone's BAT binding posts. Run the wire across the TA-312's face and between the line binding posts and the handset cradle.

Remove the case-retaining screw beside the line binding posts. Secure the lamp assembly to the case with that screw, keeping the lamp snugged against the cradle.



## OE-254 Group Scoop

Before you pack up your antenna group's mast sections, make sure they're clean.

Sliding the top sections inside the bigger bottom sections saves room in your transit bag. But they fit snugly. Any extra dirt, tape or gunk can bind the two together.

Head off this lockup by going over the sections first with a wet rag or brush.

When you do slide them together, slide the female end in first. That'll leave enough sticking out the other end for a good handhold.



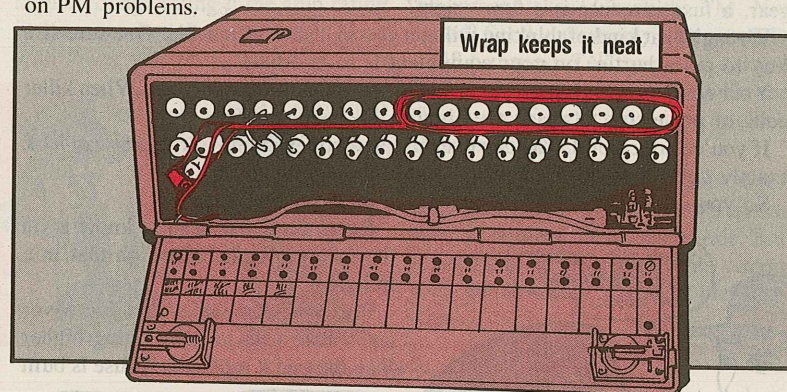
Join female ends

Finally, don't let cracked mast sections put you out of business. Keep the strain off by following the erection and guying directions in TM 11-5985-357-13.

## SB-22 Strap Wrap

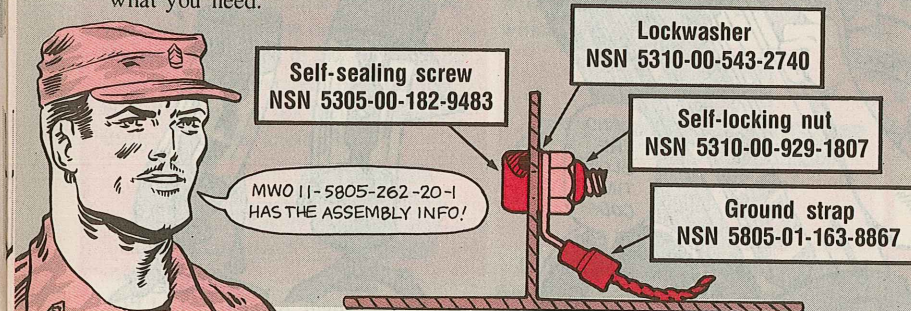
You can't wad up 6 feet of ground strap and stuff it into your switchboard's battery compartment without damaging something. You'll soon find broken latches, sprung doors and broken binding posts.

A better idea is to pull the strap back through the line gasket and wrap it carefully around the last 9 or 10 binding posts. That keeps it neat and closes the door on PM problems.



## SB-22 MWO NSN's

The parts to your switchboard's new grounding kit now have numbers. Here's what you need:

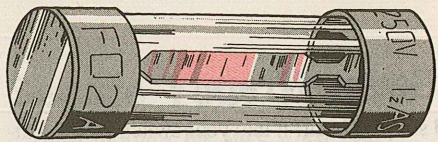


## Designation Strips

Keep your ballpoint in your pocket when it's time to mark your switchboard's designation strips.

Use a grease pencil—or some other erasable writer—and you can use that strip again on the next field problem.

If your strips are already ruined, get new ones with NSN 9905-00-639-1679.



# Fuse

All the news that's fit to print...

When it comes to protecting the fragile and expensive parts of your electrical gear, a fuse is a fuse is a fuse—right?

Wrong! That kind of thinking will get you in a peck o' trouble. One sure-fire way to put a hurtin' on your equipment is to overfuse.

Your equipment's circuit is built with a weak link—the right fuse. When killer bolts of power try to attack the circuit, the fuse goes first.

If you're not careful, you can overfuse and not even know it. Fuses can look exactly alike, but electrically be completely different.

So you can't just put two side-by-side to see if they match.

Everything you need to know is on the fuse—in code. More on that in a minute.

For now, remember that you never use a fuse with an amp rating higher than the one it replaces. A fuse is built

CHECK THE VOLTAGE AND AMPERAGE RATINGS...



...AND THE BLOW TIME CODE!

REPLACEMENT FUSE REPORTING FOR DUTY...



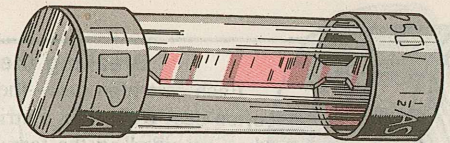
SORRY, PAL, YOU'RE NOT QUALIFIED!



to carry only so much current. If the current goes above the rating and over the time limit, the metal link melts.

A fuse with too high an amp rating would continue to carry current that will damage parts the original fuse was designed to protect.

# News

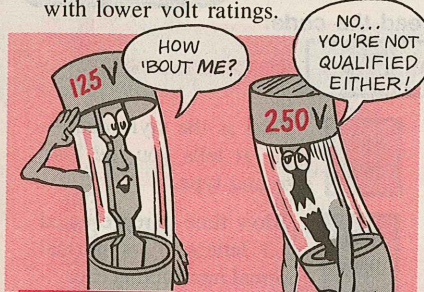


...But not all fuses fit the print!

On the other hand, you can use a higher voltage rating if the amp rating is the same. Just don't substitute fuses with lower volt ratings.

Confused about which fuse your equipment takes? Check the TM. Not listed? Send your supply support a DD 1348-6 request. Tell them what current and voltage rating you need, what the fuse is used in, etc. Give them as much info as possible.

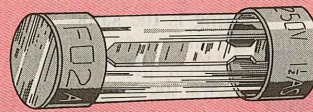
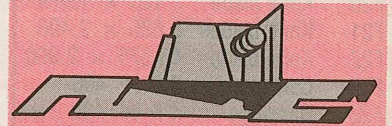
Of course you know not to put a paper clip or a piece of foil in place of a blown fuse. It might work... for awhile. But it gives you no protection. Your circuit is at the mercy of whatever blew the fuse.



## Kinds of Fuses

**CARTRIDGE**—This is probably the most common fuse. It's a tube of glass, plastic or ceramic. Inside, there's a link attached to both cap ends called ferrules. They are low-current capacity (.002- to 60-amp) fuses used in low-powered circuits. For higher-rated (over 60 amps) circuits, there is another type of cartridge fuse, the knife blade.

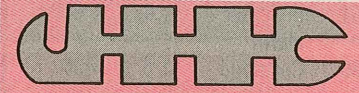
**INDICATOR ALARM**—These serve a dual purpose. They protect the circuit, like other fuses, and give a noise and/or visual signal to show which one has blown.



**PLUG**—Used in many house circuits. It has a mica or glass window to let you see its condition.



**LINK**—This is the simplest kind of fuse. It's a series of flat metal pieces, attached by thin metal necks. They are sometimes used as replacement links for reusable cartridge fuses.



## Breaking the Code

Each cartridge fuse—the kind you most often deal with—has a string of letters and numbers stamped on the ferrules. They tell you everything you need to know about the fuse.

They'll also sometimes clue you to the NSN. Before sending off your PN request, bump the number on the ferrule against the listing in the Master Cross Reference List (MCRL) Part 1.

Here's how to read the code:

**F02 A 250V 1½AS**

STYLE CODE	TYPE	DIMENSIONS (inches)
F01	Cartridge	1 × .25
F02	Cartridge	1.25 × .25
F03	Cartridge	1.125 × .25
F07	Cartridge	1.5 × .406
F09	Cartridge	1.5 × .406
F11	Cartridge	1.5 × .406
F14	Plug	1.281 × 1.281
F15	Cartridge	2.0 × .562
F16	Cartridge	3.0 × .812
F19	Knife blade	5.875 × 1.312
F20	Knife blade	7.125 × 1.875
F21	Knife blade	8.625 × 2.406
F22	Knife blade	10.375 × 2.906
F27	Cartridge	3.0 × .406
F28	Cartridge	4.5 × .406
F29	Cartridge	5.0 × .812
F30	Cartridge	10.0 × .812
F36	Link	2.5 × .562
F37	Link	2.5 × .562
F38	Link	3.0 × .812
F39	Link	3.5 × 1.062
F40	Link	1.75 × 1.312
F50	Link	1.406 × .406
F51	Indicator alarm	1.672 × .406
F60	Cartridge	1.5 × .406

### Style code

First is the style code—**F02**. It tells you the fuse size and type.

### Blow time

Blow time is represented by 3 letters. **A** is normal (normal interrupting capacity). **B** is time lag (slow blow). **C** is fast (very high interrupting capacity). Always substitute an A fuse for an A, a B fuse for a B and a C fuse for a C.

### Voltage rating

**250V** means the fuse is rated at 250 volts. Remember, you can use a fuse with a higher voltage rating than the original only if the amp rating is the same.

### Current rating

**1½A** is the amp rating. It shows the max amount of constant current the fuse link will carry without blowing.

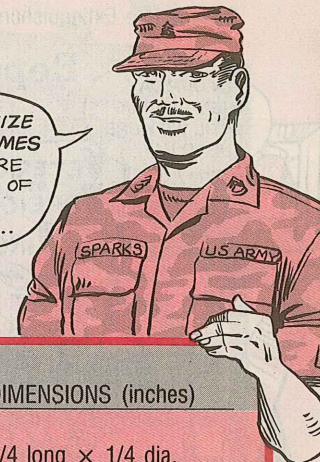
### Coating

Finally, the **S** tells you the ferrules are silver-coated. No **S**, no silver. Plain ferrules are preferred because they don't tarnish or corrode so easy.



BE EXTRA CAREFUL WHEN USING CIVILIAN CODED FUSES. THE AMPS AND VOLTS ARE CODED THE SAME...

...BUT THE SIZE AND BLOW TIMES ARE NOT. HERE ARE SAMPLES OF COMMON MARKINGS...



DESIGNATION	BLOW-TIME CHARACTERISTICS	DIMENSIONS (inches)
3AB	Slow-acting	
3AG	Normal	1 1/4 long × 1/4 dia.
3AG Slo-Blo	Slow-acting	
4AG	Normal	
4AG Slo-Blo	Slow-acting	1 1/4 long × 9/32 dia.
5AG	Normal	
5AG Slo-Blo	Slow-acting	1 1/2 long × 13/32 dia.
8AG	Fast-acting	1 long × 1/4 dia.
ABC	Fast-acting	
AGC	Fast-acting	1 1/4 long × 1/4 dia.
AGX	Fast-acting	1 long × 1/4 dia.
FNM	Fast-acting	1 1/2 long × 13/32 dia.
MDL	Slow-acting	
MDX	Slow-acting	1 1/4 long × 1/4 dia.
MTH	Fast-acting	

## Fuse Care

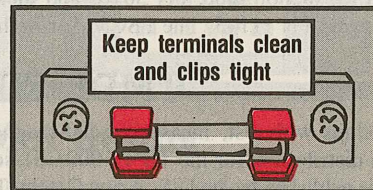
Once you've got the right fuse, you want to make sure it lasts a long time.

Before you slip it into a holder, turn the circuit off. If you don't, you could create an arc. That burns the ferrules or terminals and limits good contact by increasing resistance.

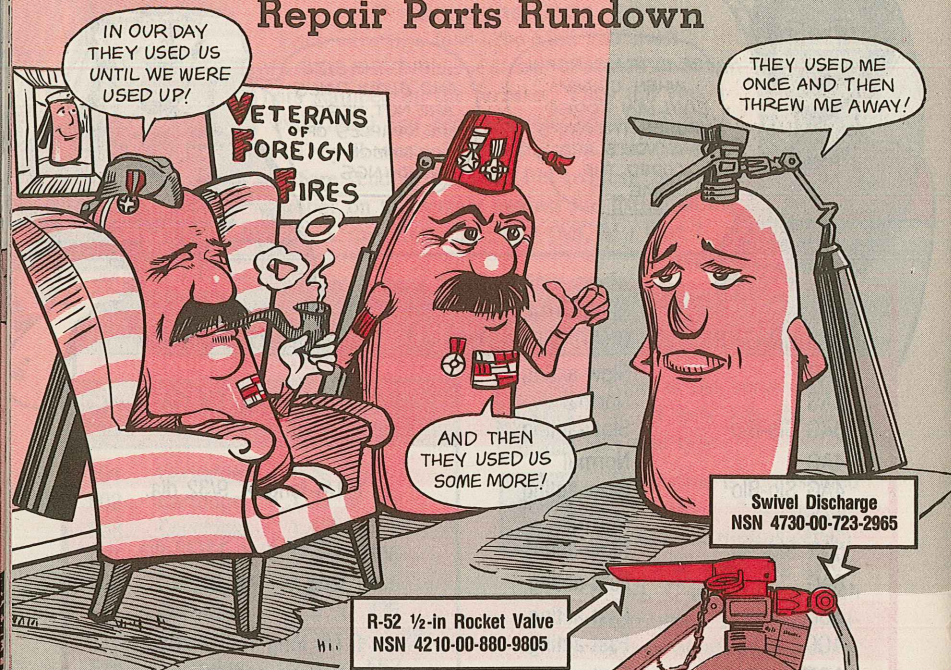
Shine up pitted or dirty terminals with emery cloth.

Keep clips tight. It should take a pretty good push to seat the new fuse. Squeeze loose clips together. If that doesn't work, replace 'em.

Watch out for signs of overheating or corrosion on the ferrules.



## Repair Parts Rundown



R-52 1/2-in Rocket Valve  
NSN 4210-00-880-9805

No need to throw your broken 5-lb CO<sub>2</sub> fire extinguishers, NSN 4210-00-270-4512, in the scrap heap. You can now get the parts to fix extinguishers made by General Fire Extinguisher Corp. They're not interchangeable with other extinguishers.

Use the same form to get the siphon tube, PN 3010, and the wall hanger, PN 11145. The FSCM for both is 99539.

Nameplate  
NSN 9905-01-045-219\*

\*Order on a DD Form 1348-6. In the Remarks Block, write "Not on AMDF."

Horn & Nozzle  
NSN 4210-00-465-1585

## TMDE EIR Digest

Units with test, measuring and diagnostic equipment (TMDE) need to get on distribution for the TB 43-0001-61-series Digest devoted solely to TMDE. It is published by the U.S. Army Central TMDE Activity, Lexington, Ky. Submit a DA Form 12-34C, stating how many copies are needed with each distribution. You can't get back issues or one-time requests.

## M8 Alarm Tidbits

The only way to go is with a reservoir in your M8 chemical alarm's M43 detector.

Storing the M43 longer than 72 hours without running distilled water through the pump will cause damage. Dump it and use a new reservoir from your M229 refill kit for start-up. It's an important pre-op procedure!

The weighted ball on the end of the reservoir assembly hose has holes to siphon the solution into the M43. Keep the ball and hose clear of dirt, dust and crud when the reservoir is removed. Any small object can clog it. Be sure to clean the inside of the M43 case.

Pull the fast prime crank all the way up to stow it. The crank is spring-loaded and pops up part-way when you release pressure. You have to pull it up all the way to stow it. When you hear a click, the pump no longer siphons, although the pump motor runs until you disconnect the battery.



## Tool Set Mat Status

Nope, tool set mat, NSN 7690-01-110-7671, is not issued with the General Mechanics Automotive tool kit, NSN 5180-00-177-7033. It is an optional item which may be authorized by your CO.

OUT WITH THE  
BAD AIR, IN WITH  
THE GOOD AIR!

# Won't

Looking for a way to protect yourself from paint splashes and chemical nasties? Then take a look at the Respirator, NSN 4240-00-022-2524. It's authorized by Appendix A of CTA 50-970.

Don't confuse this gem with your M17- or M24-series protective masks. The respirator only covers the lower half of your face, and it's not designed to deal with NBC stuff.

It will, however, keep you from breathing **organic** vapors like cleaning fluids and solvents (ketone, acetone and others) and spray paint, dust, varnish and lacquer mists. That NSN will get you either a single or double respirator.

The single comes with 25 cartridges (which filter out the organic vapors) and 50 prefilters (which protect you from spray paint mists or drops). The double version comes with 50 cartridges and 100 prefilters.

You can't get the cartridges or prefilters separately. Once you've used up those that come with the kit, your respirator has outlived its time. Toss it and request a new respirator.

### Maintenance Tips

Clean your respirator after each day's use like so:

- Remove the filters, headbands and valves from the rubber facepiece.
- Immerse all parts, except the filters, in a warm solution (140° to 160°F) of a germ-killing detergent.
- Scrub the rubber parts of the mask gently, using a soft brush.
- Rinse thoroughly in clean water and let dry.

# Leave you Breathless

Replace the cartridges in your mask at the first trace of contaminant odor detected while you're wearing it. To replace the cartridge, unscrew it and replace it with a new one. Be sure that the rubber gasket is evenly seated in the filter holder.

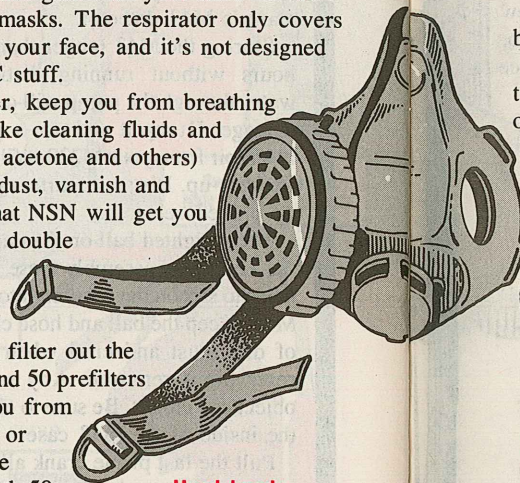
Use prefilters for protection against mists of paint sprays. Replace when breathing becomes difficult.

To replace prefilters, remove the prefilter retaining ring from the front of the cartridge. Put the prefilter in the retainer and replace the entire assembly on the cartridge front.

Before storing your respirator, make sure it's clean. Place it in a cool, dry area that is free from airborne contamination. Be sure to check your respirator again before using.

Here are some things to keep in mind when you use your respirator:

- ✓ Use it only in well-ventilated areas where plenty of oxygen is available.
- ✓ Don't use it around toxic contaminants.
- ✓ Leave the area immediately if:
  - breathing becomes difficult;
  - you get dizzy; or,
  - you taste or smell the contaminant.
- ✓ Never alter or modify your respirator.
- ✓ Make sure your mask is properly fitted.



Head bands

Valve

Plastic filter holder

Rubber gasket

Cartridge

Prefilter

Prefilter retaining ring

FOLLOW THESE TIPS  
AND YOU'LL BREATHE  
EASIER WITH YOUR  
RESPIRATOR!

# Get Them By the Numbers

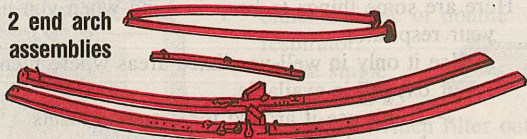


TO GET A NEW MAINTENANCE TENT, ORDER IT BY SECTIONS!

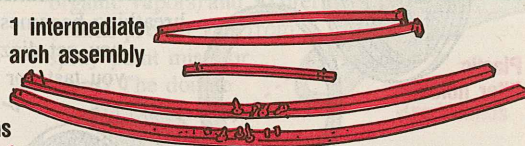
When it comes to ordering a new maintenance tent, one NSN won't do. NSN 8340-00-951-6419 is for reference only. Here's what you need:

## Frame Section, end, NSN 8340-00-951-6420

2 end arch assemblies



1 intermediate arch assembly



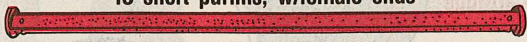
4 end assembly purlins



13 short purlins, w/male and female ends



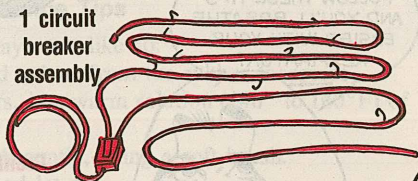
13 short purlins, w/female ends



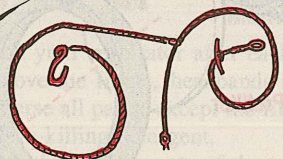
1 lighting and outlet assembly



1 circuit breaker assembly

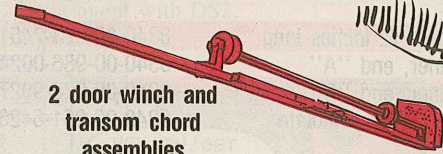


6 guy assemblies



## Frame Section, door, NSN 8340-00-951-6421

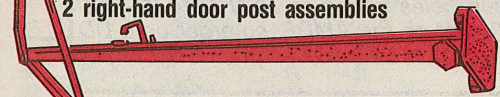
2 door winch and transom chord assemblies



2 left-hand door post assemblies



2 right-hand door post assemblies

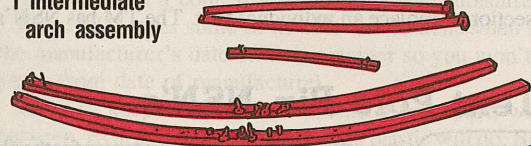


8 door spar assemblies



## Frame Section, intermediate, NSN 8340-00-951-6422

1 intermediate arch assembly



1 lighting and outlet assembly



13 long purlins



You'll need one end section (which includes both ends), one door section (enough for 2 doors), and 3 intermediate frame sections for a standard 32-ft maintenance tent.

Order extra intermediate sections for longer tents. Each section adds 8 feet. Generally, you shouldn't build a tent longer than 64 feet.

YOU'LL NEED THIS QUANTITY OF THE FOLLOWING!



Name	NSN	Quantity
Tent section, end	8340-00-951-6424	2
Tent section, intermediate	8340-00-951-6425	1 for each intermediate section
Pin, steel 12 inches long	8340-00-823-7451	24
Tent liner, end "A"	8340-00-986-0024	1
Tent liner, end "B"	8340-00-978-9627	1
Tent liner, intermediate	8340-00-951-6426	1 for each intermediate section
Pipe, aluminum, 43 inches long	See Note	18 (9 for each end)
Pipe, aluminum, 91 inches long	See Note	9 for each intermediate section

**NOTE:** Make liner support poles from pipe NSN 4710-00-542-2903. This NSN's not on the AMDF, so order on a DD Form 1348-6. The SOS is S9C and the price is \$1.27 per foot.

Don't forget the ground anchor kit. NSN 8340-00-951-6423 gets the kit with 50 ground anchors, 2 driving heads, and 2 handles. You'll have to provide your own sledge or maul.

Use TM 10-8340-207-14 to figure up how much rope you need. Go thru and jot down the lengths you'll need. Add about a third more.

When you order rope, NSN 4020-00-536-3476, just ask for the length you need. You won't need the whole 2,250-ft roll.

Don't order an entire section to replace an individual part. The TM has NSN's for parts.

## GP Tent Pole Pin NSN's

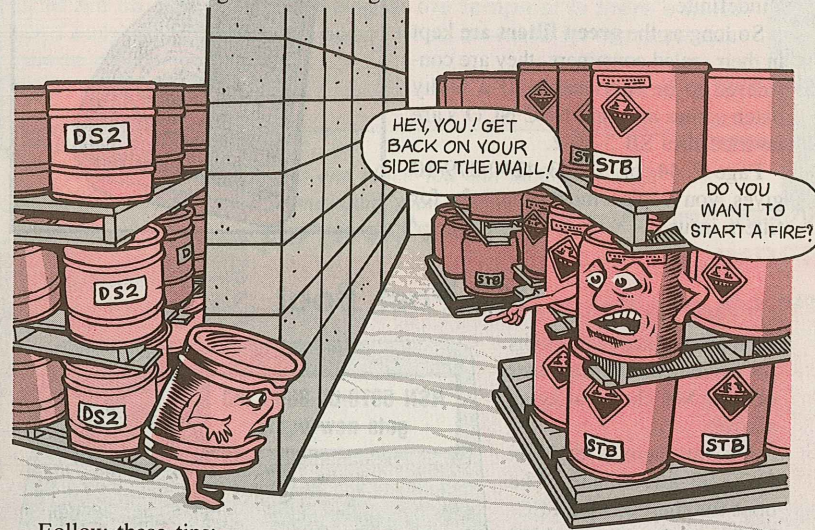
HERE'S WHAT YOU NEED:

You can get replacement pins for the aluminum poles used with your GP tents.

Pin Assembly NSN 8340-01-	Diameter (Inches)	Length (Inches)	Used on tent pole NSN 8340-00-
036-3781	3/8	1 1/2	753-6574
036-3782	3/8	2	753-6574
036-3783	3/8	2 1/2	753-6574
036-3779	1/4	1	753-6575
036-3780	1/4	1 1/2	753-6575

## DS2, STB Storage

Want to have a hot time in the storage area tonight? You might, if you aren't careful when storing STB decon agent with DS2.



Follow these tips:

Store STB in a cool, dry place. Heat and moisture will decompose it.

Since STB loses some of its chlorine content when stored, be sure to check the manufacturer's date on the container so you won't exceed the shelf life (5 years from date of manufacture).

Indoors, keep STB and DS2 at least 5 feet apart, with a splashproof barrier between. Boards lined with heavy gage plastic will do. Be sure barriers are tightly sealed at the floor so there can be no leakage. STB and DS2 will cause a fire if accidentally mixed.

When storing DS2 or STB outdoors, put pallets or dunnage between layers and between the bottom layer and ground to assure air circulation. Cover with tarps.

Always store DS2 where it can drain away from STB. Check the containers every 12 months for corrosion or leaks.

Mix STB in a separate location from stored DS2.

Never store DS2 that was exposed to air for 48 hours or more. Oxygen will cause the chemical to deteriorate.

"Corrosive" material labels are SF 416's. Have your pubs clerk order them on a DA Form 4569 via AUTODIN.



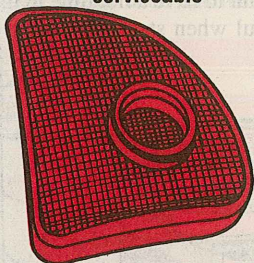
## M13A2 Filter Goes On & On

The shelf life of your M13A2 filters, NSN 4240-00-165-5026, for your M17-series protective masks is "indefinite."

So long as the **green filters** are kept in their sealed containers, they are considered to be serviceable. If a faulty batch comes through, NBC NCO's are notified thru SB 3-30-2.

Page 2-44 of TM 3-4240-279-10 gives you replacement intervals for filters in use.

If they're sealed, they're serviceable



## M8 Post Boot

Need replacement boots for the remote **binding posts** of your M8 chemical agent alarm?

Go for them with NSN 5970-00-869-6263. The boot fits the "TO DETECTOR" posts of the M42 alarm unit and the "RE-MOTE" binding posts on the M43 detector.

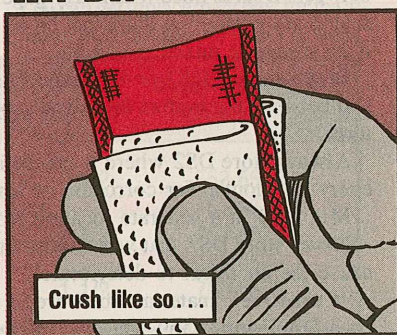


## M258A1 Kit Bit

Crush, don't grind, when you use the Decon 2 Wipe in your M258A1 personal decontamination kit.

The ampoules in the No. 2 Wipe are glass, enclosed in a plastic mesh screen. To break them, crush them between your thumb and fingers.

If you break them another way, glass slivers can pierce the screen and stick in the pad. Since you wipe your skin with the pad, you can do without the glass slivers!



## Pubs Patter

Dear Half-Mast,

*My pubs library is really out-of-shape. I've got tech manuals that are so old, they're graying at the temples! Is there a quick and easy way to find what pubs I need on-hand for my particular piece of equipment?*

SGT S. L. P.

Dear Sergeant S. L. P.,

*Don't despair! There is one place you can look to find all of the pubs you need to maintain your equipment.*

### CROSS-REFERENCE INDEX BY SB 700-20 LINE ITEM NUMBER

LIN NSN	GENERIC NOMENCLATURE NSN NOMENCLATURE	DATE	CHS	IN FORCE	DA	LC	COMPONENT NSN	NOMENCLATURE
E60175	COMMUNICATIONS SWITCHING SET AN/MSQ-74(V)1							
5895-00-949-5868	COM SWH AN/MSQ-74(V)1							
	BASIC PUBS	DATE	CHS	IN FORCE	DA	LC		
TM 11-5820-577-14/1		JUN 76	1		JAN 80			
TM 11-5820-577-14/2		JUN 76						
TM 11-5820-577-14/3		JUN 76						
TM 11-5820-577-14/4		JUN 76						
TM 11-5820-577-14/5		JUN 76						
TM 11-5895-376-14-1		AUG 76						
TM 11-5895-376-14-2		MAY 76						
TM 11-5895-686-12		MAY 68						
	PUBS ON COMPONENTS	DATE	CHS	IN FORCE	DA	LC	COMPONENT NSN	NOMENCLATURE
TM 9-2330-246-14		SEP 68	2, 4, 5		AUG 73		2330-00-797-7405	SMITLR VAN ELECTRONIC
TM 9-2330-246-148P		JUN 83					2330-00-797-7405	SMITLR VAN ELECTRONIC
TM 55-2330-246-20-1		NOV 68					2330-00-797-7405	SMITLR VAN ELECTRONIC

It's called "Line Item Number (LIN) to Publication Number Cross-Reference List" and you'll find it in Section XI of DA Pam 310-1, Consolidated Index of Army Pubs and Forms. You need to know the LIN of your equipment to find the pubs. The fiche lists TM's, TB's, LO's, SC's and MWO's.

Find the LIN of your equipment on your Property Book. Then look it up on the fiche. Beside it is the nomenclature and NSN for the equipment. But underneath is a jackpot of basic pubs and changes for your end-item.

Sound good? There's more! You'll also find a list of publications that specifically cover components of your end-item. This "pubs on components listing" identifies the publication, gives its date, the latest change and relates the pub to the item it covers.

So, look up your LIN, check the fiche, and retire those graying pubs!

Half-Mast

Find a Pub Flub?...

## Tell 'em About It!

THIS PUB IS FULL OF MISSING INFO!

DON'T GET MAD! DO YOURSELF A FAVOR, AND LET THEM KNOW!

DA FORM 2028

Find a fault in your TM or other publication that you're just itching to sound off about? Like a wrong NSN, unclear illustrations, confusing or missing info? Then do something about it!

You're the one who uses the pub day in and day out. Who better to let the headshed know about the mistake?

In the first pages of almost every publication, or on the last page, you'll find a paragraph that says something like this:

"The proponent agency of this publication is \_\_\_\_\_. Users are invited to send comments and suggested improvements on DA Form 2028, Recommended Changes to Publications and Blank Forms, to \_\_\_\_\_."

That "user" is you! Point out that fault you found and send it to the address listed in that paragraph. Use the preprinted DA Form 2028-2 you'll find in the back of your pub. None there?

Then visit your pubs clerk and use a blank DA Form 2028.

The headshed will send you a reply and correct the publication at the first opportunity.

So, do yourself and the whole Army a big favor by helping to improve your pubs.

Connie's POST SCRIPTS



AHHH!... IT'S SO NICE TO BE CLEAN AGAIN!

GOOD PM IS LIKE A BREATH OF FRESH AIR!



## Check That Tiedown!

Hold one before you replace the MB-1 tiedown adjusters in your aircraft like we said on Page 39 in PS 375. Tiedowns manufactured by ANCR Corp are the only ones affected by TSARCOM Msg DRSTS-MCAPL 111900Z Aug 83. You can spot them by the manufacturer's code 31272, and part number 42189-10 stamped on the side. Other MB-1 tiedown adjusters, NSN 1670-00-212-1149, are OK.

## 5-Ton Fuel Filter

It's back to square one on draining the M809-series 5-ton truck fuel filter to check for contamination. TM 9-2320-260-10-2 says it's an after-operation check—and that's the right interval. The headshed has decided not to call for both a before- and after-operation check as reported on Pages 22-23 of PS 375.

## FRH Error

The Mil Spec for fire resistant hydraulic fluid on Page 18 of PS 376 is wrong. The correct Mil Spec is MIL-H-46170. Any hydraulic fluid with this Mil Spec, or an amendment to it, must be handled with care as the article describes.

\* U.S. GOVERNMENT PRINTING OFFICE: 1984-759-008/7

## Bell & Howell Viewer Lamp NSN

Use NSN 6240-00-389-4822 to get a lamp for your Bell & Howell Commuter model microfiche viewer. The NSN's not on the AMDF, so order on a DD Form 1348-6. The SOS is S9G and the price is \$14.27. This replaces the NSN 6240-01-016-4447 given on Page 64 of PS 374.

## Asbestos Hazard

Mechanics working around brakes or clutches may be exposed to the danger of asbestosis or cancer unless proper protective measures are used. DA Cir 40-83-4 tells about the Policy and Guidelines for Asbestos Management and lists several related publications. Your supporting preventive medicine personnel can help you with safety precautions.

## M88A1 Caution

Never shift your M88A1's transmission from neutral to high range while RPM exceed 1,000. You can damage the high range clutch in the transmission. TM 9-2350-256-10 will be updated to carry this caution under the driver instruction section.

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

# TOOLS

# NEED MAINTENANCE TOO!



FM 9-24  
FUNDAMENTALS OF  
MACHINE TOOLS

TB 750-103  
MAINTENANCE AND CARE OF COMMON TYPE  
MACHINE TOOLS AND SHOP EQUIPMENT  
BEFORE, DURING AND AFTER OPERATION

TM 5-431  
TO 32-1-171  
ENGINEER  
HAND TOOLS

TM 9-243  
USE AND CARE  
OF HAND TOOLS AND  
MEASURING TOOLS