Issue 393

PS

August 1985

THE PREVENTIVE MAINTENANCE MONTHLY

See The Answer - Page 29

PS THE PREVENTIVE MAINTENANCE MONTHLY

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

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Combat Vehicles . . .

Night Vision Alert

Attention, drivers! When the night turns pitch black, stormy or both, test your AN/VVS-2 night vision viewer before you trust it.

It might leave you in the dark—a bad place to be when you're traveling cross-country.

Remember, the viewer doesn't make its own light. It only increases the low-level light available on a normal night.

Cloudy nights with no moon or stars won't produce enough low-level light for safe operation. Rain and lightning distort your already weak image.

If the night is extremely dark or the weather conditions poor, adjust the viewer to maximum resolution.

If your view is still limited or distorted, stop your vehicle and get some guidance. If you can't see, neither can anybody else. So, call a halt to your operation!

Clean Air to the Rescue!

Does the M60A3 tank you just checked out look a little strange?

Like no blower motors, spring loaded air filters and a lot of new pipes and hoses in the engine compartment?

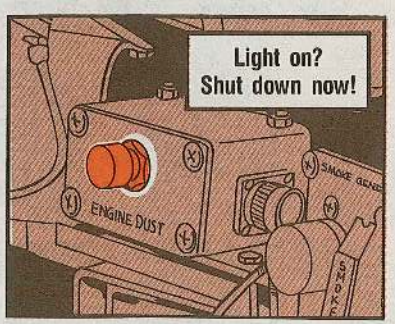
Don't get alarmed! The tank's been depot-modified with a new, improved air induction system. Eventually all M60A3's, AVLB's, M728's and some M60A1 RISE Passive's will receive the modification.

The new system's designed to reduce engine failures by nearly 50 percent.

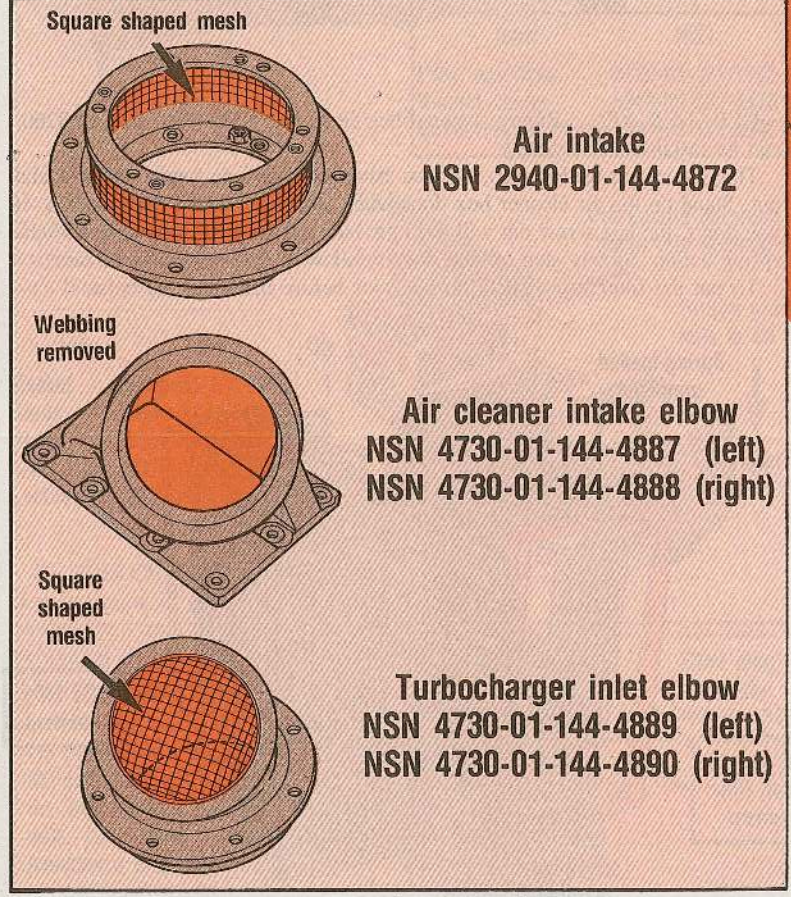
How? By increasing air flow... decreasing dust and dirt in air going to the engine...and warning drivers of dirty air before it causes engine damage.

In a nutshell, here's what makes the system better:

- New filter elements that hold more dust, have better seals and are spring-loaded for a better fit.
- A vehicle exhaust dust ejector system that provides cleaner air to the engine. Since it has no blower motors or moving parts, it lasts longer.
- A dust detector system consisting of extremely sensitive filter strips that monitor dust blowing thru the turbochargers. Excess dust will cause the lights to come on, signalling drivers to shut down the engine immediately.

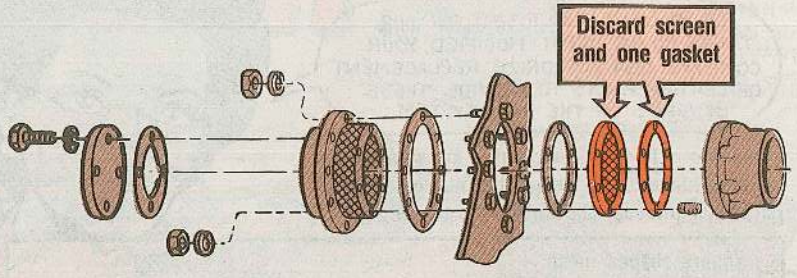


MORE AIR...Replace the air intake, air cleaner intake elbow and turbo inlet elbow with parts that increase the airflow to the engine.



PS MORE

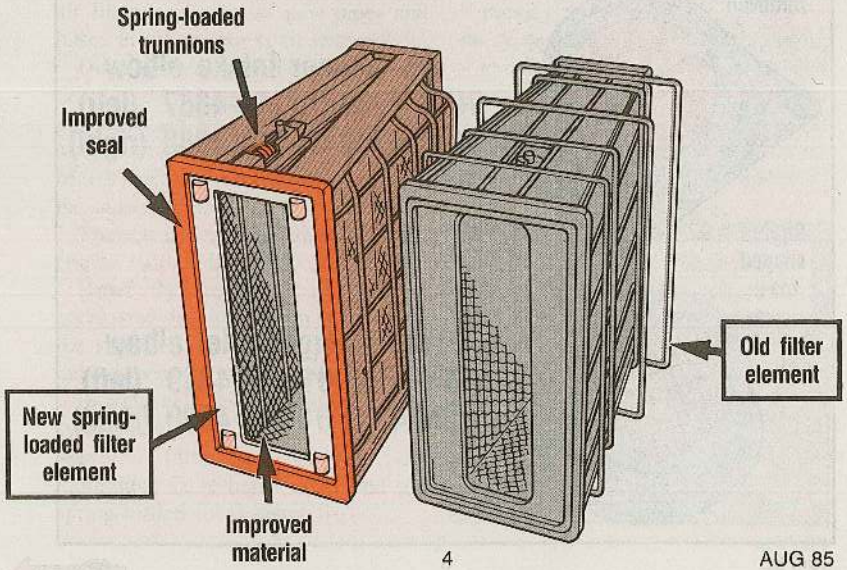
When you install a new air inlet, toss the screen and one of the two gaskets between the inlet and the air cleaner hose.



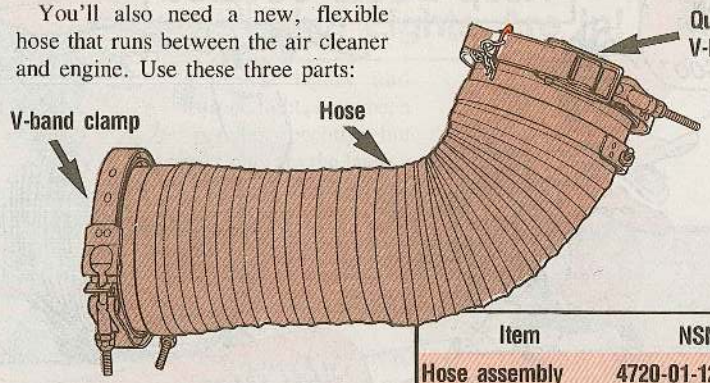
CLEANER AIR...Bigger, better filter elements, NSN 2940-01-142-8260, can be installed immediately.

They're spring-loaded, tho, so you have to take care gettin' 'em in and out. Stand on the air cleaner box door when you take out the door screws. If you don't, the last screw out will strip the hole and be hurled into orbit by the spring action. Slowly step off the door to allow spring tension to release.

To put the filter back, stand on the door before installing the bolts.



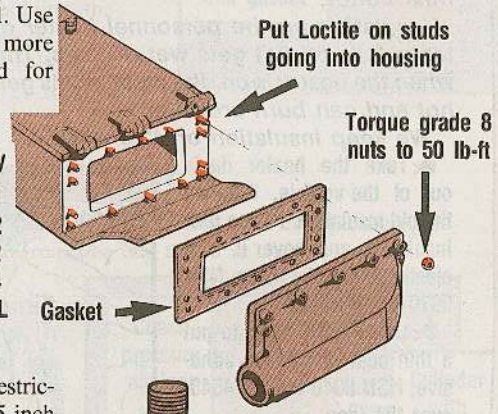
You'll also need a new, flexible hose that runs between the air cleaner and engine. Use these three parts:



Item	NSN
Hose assembly	4720-01-121-1542
V-band clamp	5340-00-678-6178
Quick-release clamp	4730-01-132-9086

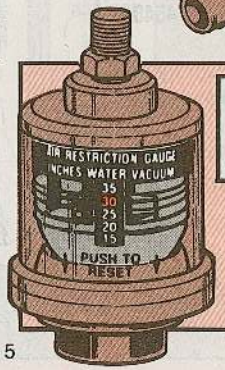
New outlet elbow gaskets for the air cleaner box make for a better seal. Use Grade 8 studs and nuts to take more torque. Here's what you need for each box:

Item	NSN	Qty
Gasket	5330-01-128-5650	1
Studs	5307-01-128-5681	2
Studs	5307-01-128-5682	12
Nuts	5310-00-814-0672	14
Loctite	8030-00-148-9833	BTL



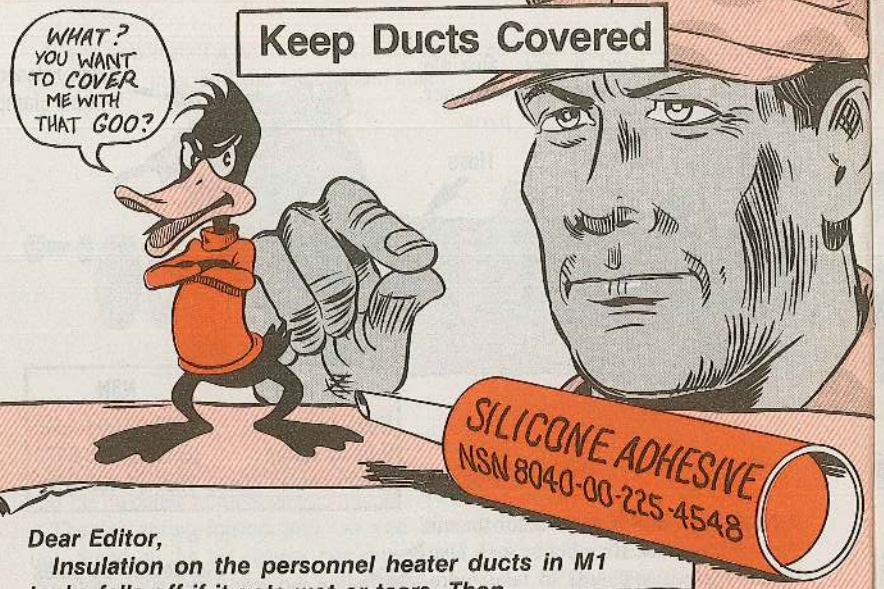
BETTER CHECK...A filter restriction indicator is graduated in 5-inch increments, from 15 to 35 inches of restriction. When it reads 30 inches, it's time to clean the filters.

For more details see Change 5 (Apr 85) of TM 9-2350-253-20-1. It covers the new system. Or, get in touch with your local TACOM Logistic Assistance Representative.



Filter clog indicator NSN 5895-01-134-8291

Keep Ducks Covered



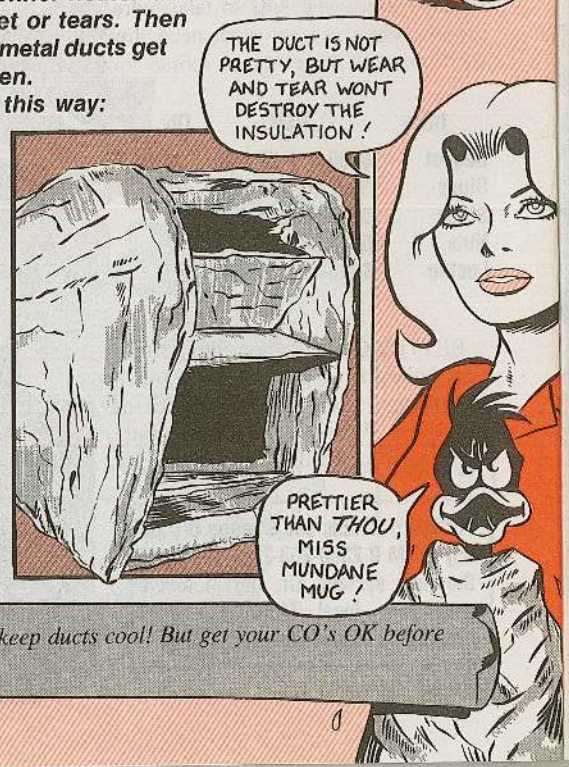
Dear Editor,

Insulation on the personnel heater ducts in M1 tanks falls off if it gets wet or tears. Then when the heater is on, the metal ducts get hot and can burn crewmen.

We keep insulation on this way:

- Take the heater ducts out of the vehicle. Remove the old insulation. Put on new insulation and cover it with electrical insulation tape, NSN 5970-00-186-6627.
- Use a putty knife to put a thin coat of silicone adhesive, NSN 8040-00-225-4548, over the tape.
- Let the adhesive dry 24 hours. Put the heater duct back in the vehicle.

Sam Vuleta
Fort Knox, KY



(Editor's note: A hot idea to keep ducts cool! But get your CO's OK before you move out.)

Combat Vehicles...

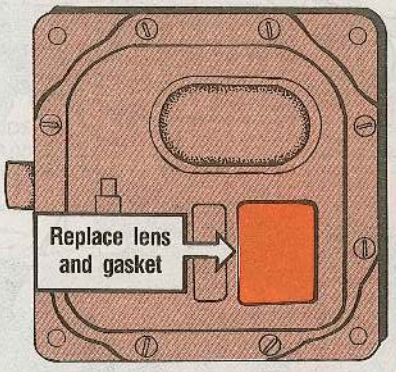
Blue Lights Are In!

Black lights and strobe lights have been popular recently, but blue lights are the latest word in lighting—for the inside of most combat vehicles.

Now's the time to have your mech change the red lens to blue in your vehicle's domelight.

He'll need a lens, NSN 6220-01-123-1353, and a new gasket, NSN 5330-01-186-5856.

If you use the old gasket, the lens will crack when you tighten the three screws holding the lens and gasket in place. Install the new gasket and lens according to TB 9-2300-421-20.



M1 Tanks...

Notice a Trend?

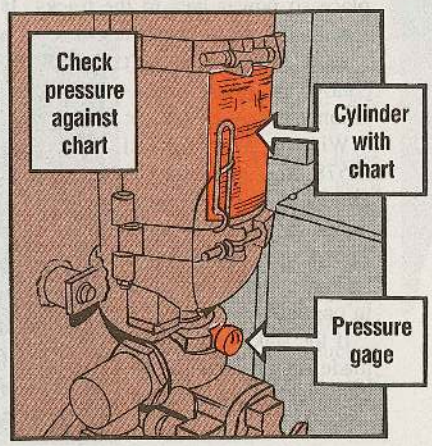
Drivers and loaders, when you pull PMCS on the fixed fire extinguishers, see if there's been a loss of pressure from one day to the next.

It's like this:

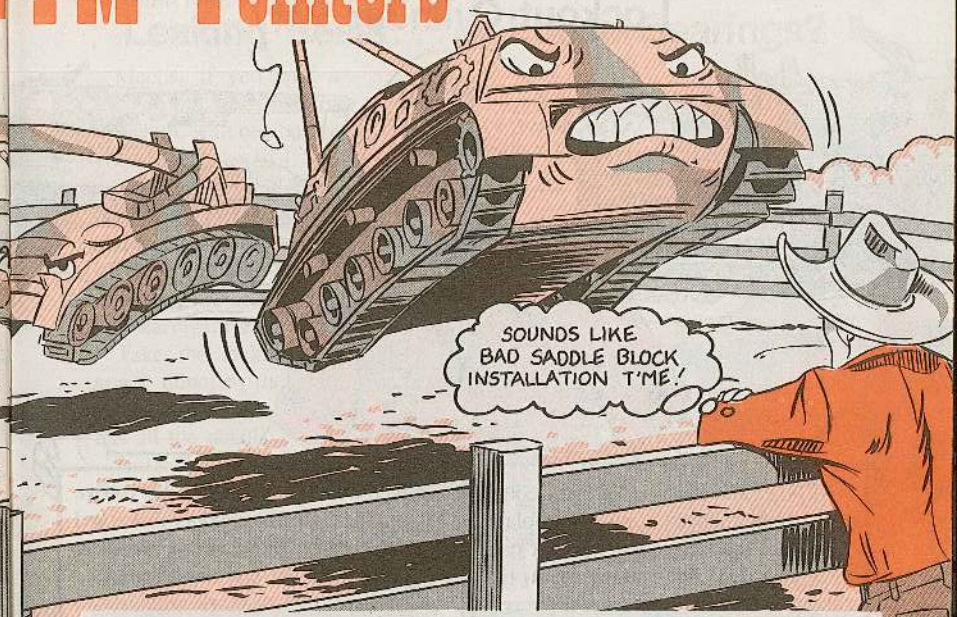
You check the cylinder pressure against the chart on the cylinders. If pressure is OK, you're good to go. Otherwise, your tank is NMC.

Tomorrow (and the next time you operate the tank) compare the pressure readings. Do this every time you pull PMCS.

If pressure is slowly decreasing, you may have trouble brewing. Although the pressure decrease could be caused by the weather, most likely there's a leak somewhere. It may not be a big leak now, but it could turn into a nightmare when you need to fight a fire. Report it!



Saddle Block PM Pointers



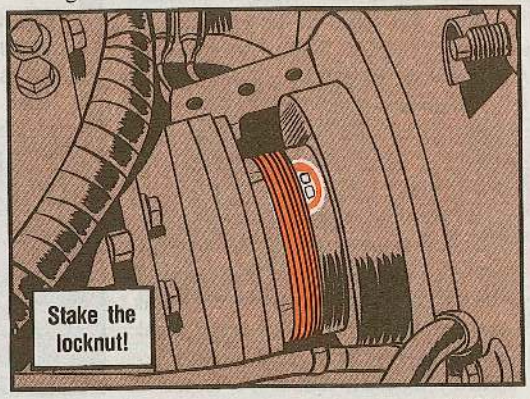
Transmission saddle blocks on M110A2 SP howitzers and M578 and M88A1 recovery vehicles are just as important to "gettin' on down the road" as final drive quick-disconnects are to tanks.

The saddle blocks hold the transmission output and final drive input shafts in place so power gets to the tracks. If any part of the saddle block fails or is installed wrong, the vehicle can go out of control.

Parts failure you can't control, but proper installation you can. Listen up:

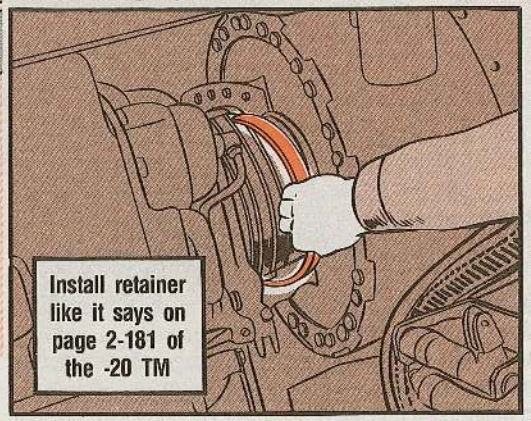
With the M110A2 and M578, the most important part of the installation is staking the locknut. The stakes prevent the locknut from loosening in operation.

If the stakes are poorly made or not made at all, the vehicle may go out of control.



Follow the procedures in your vehicle's -20 TM to the letter. Stake the locknut at the notches provided. If you can't get a good stake, replace the locknut. Half-done is not done.

On the M88A1, you don't have to stake anything, but you do have to be careful how the coupling retainer is installed. The retainer serves the same purpose as the locknut and stakes on the other vehicles. Follow TM 9-2350-256-20 and you'll be OK.



To prevent lube leaks at the saddle blocks, use a thin coat of sealant on the mating surfaces. Apply general purpose sealant, Type 1, every time you remove or install the powerpack or reduction drives. You get a 5-oz tube with NSN 8040-00-833-9563.

Lockout Cylinder PM

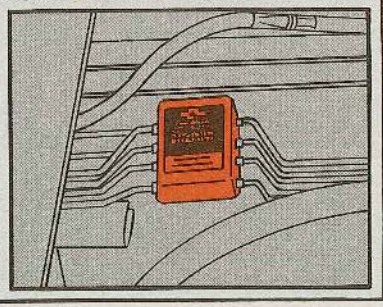
BEND THE PIN—Be sure the cotter pin holding the mounting pin in place is bent all the way over, not just part way. You don't have much room, but a shortcut can leave your favorite crew "locked out" of a mission.

PAINT THE SHAFT—If you've had troubles with the cylinder piston rod unscrewing from the attaching eye, paint a mark across the end of the shaft.

Check your paint mark regularly to spot any movement before the shaft comes loose and causes damage.

OPEN THE VALVES—If your vehicle has the new lockout cylinder isolation panel, make sure all the cylinder valves are open when you test the lockouts.

Otherwise, you may think you've got a problem when you don't. Each of the valves locks out a cylinder, so that a leaking hydraulic line won't put the vehicle down during a mission.



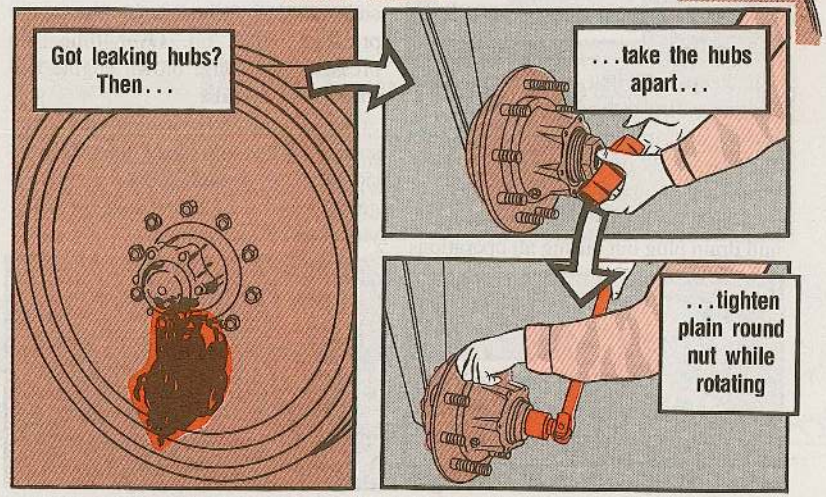
Leaking Seals...or Loose Bearings?

Mechs, if you spot a leak on the roadwheel or idler hub, wait one before you replace the seal.

The problem could be a bad seal...or a loose bearing. So before you spend time and money replacing the seal, adjust the bearings. Here's how:

Take the leaking hub apart, down to the plain round nut. Your -20 TM has all the details.

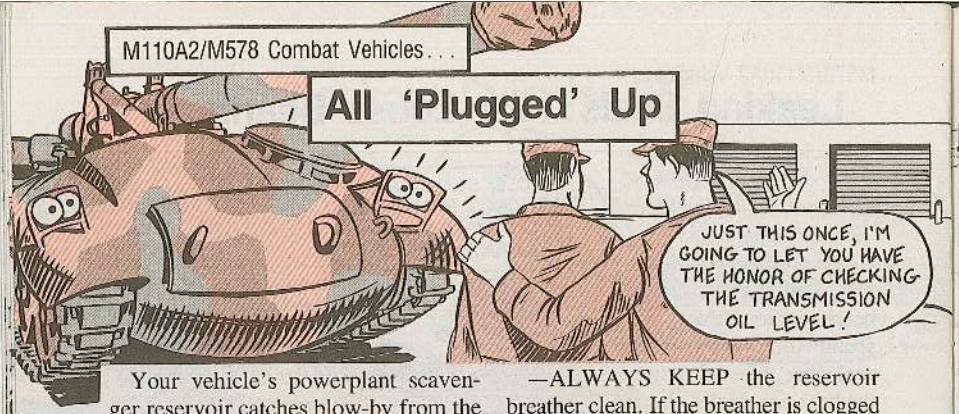
Instead of removing the nut, tighten it with socket wrench, NSN 5120-00-588-4808. It's one of your special tools.



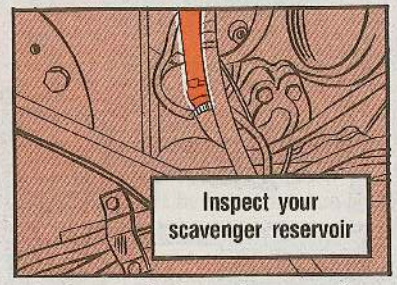
As you tighten the nut, rotate the hub in one direction, then the other, until you feel a slight bind. That bind tells you the bearings are seated.

Once you feel the bind, back off the nut 1/6 to 1/4 of a turn. Put the hub back together like your -20 TM says. If the hub leaks again right away, change the seal.

All 'Plugged' Up



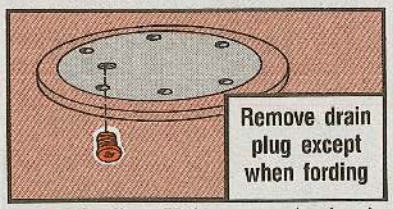
Your vehicle's powerplant scavenger reservoir catches blow-by from the engine and transmission.



It keeps all that oily mess from making a fire hazard in the hull.

But, the reservoir can cause some blow-by of its own if you don't do a couple of things—

—ALWAYS LEAVE the reservoir's hull drain plug out during all operations

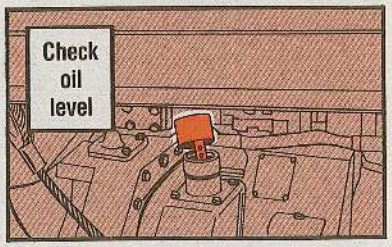


except fording. If the reservoir plug is left in place, the reservoir fills up. That creates pressure in the scavenger system. The pressure escapes thru the breather.

—ALWAYS KEEP the reservoir breather clean. If the breather is clogged

and the drain plug is in place, the pressure builds up. Over time, the pressure will cause blown engine and transmission seals.

But you'll get the picture much sooner. When you check the transmission oil level one day—Blooey!—you'll get a face-full of oil. If that oil's hot, you'll get a bad burn.



Remember the drain plug and the breather when you pull the after-operation reservoir drain check in your PMCS.

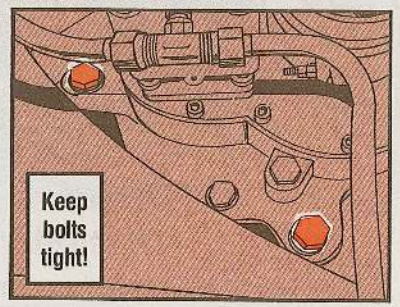
No Play Needed

Tight is right when it comes to the hydraulic traversing unit on your M578.

Any movement in the mount can cause jerks and slips when traversing.

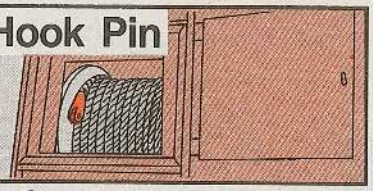
Damage to the traversing unit caused by movement must be repaired at DS. That means you lose use of the vehicle.

TM 9-2350-238-10 or -20 does not have a bolt tightness check. So, if you suspect that the traversing unit is loose, let your mech know before damage is done.



M578 Tow Hook Pin

Use NSN 5315-00-706-9195 to get a tow hook pin for the winch cable on your M578 recovery vehicle.



Need help maintaining the M120 salute gun? Write or call AMCCOM's howitzer representatives. They've got the poop on the converted 75-MM pack howitzer.

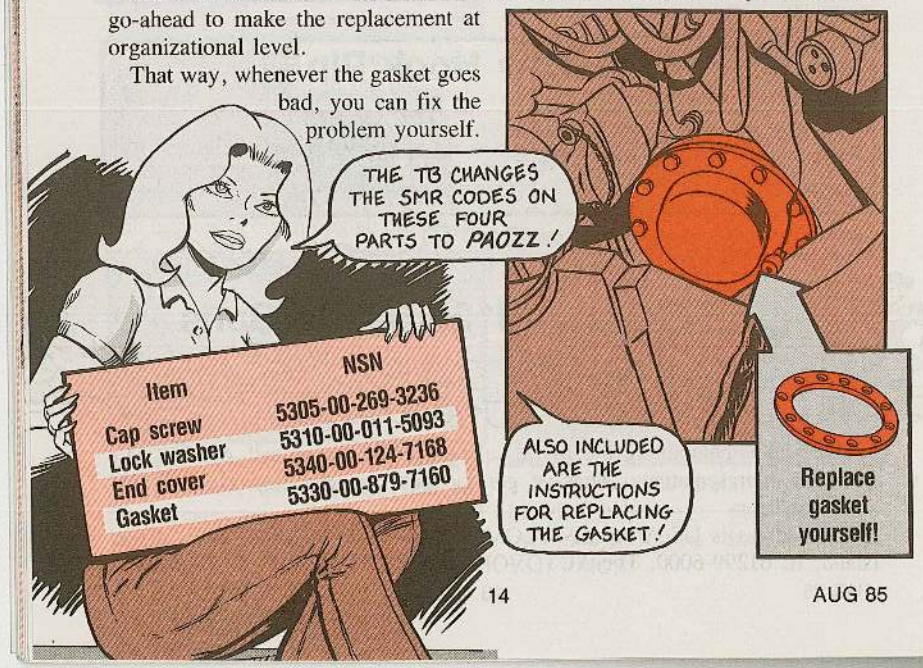
The address is US Army AMCCOM, ATTN: AMSMC-MAL-SSA, Rock Island, IL 61299-6000. The AUTOVON is 793-2061/2261.

Final Drive Do-It-Yourself

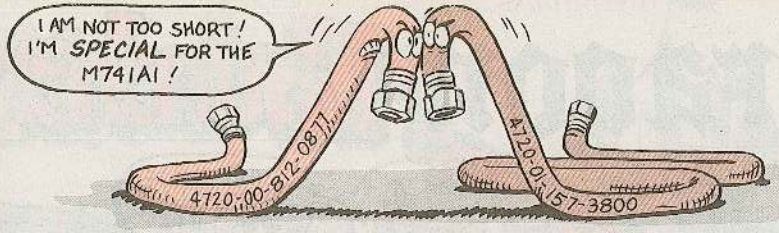
Tired of eating downtime while DS replaces the final drive end cover gasket on your M109?

Chew on it no more! Para 2-6a of TB 43-0001-39-4 (Jan 85) gives you the go-ahead to make the replacement at organizational level.

That way, whenever the gasket goes bad, you can fix the problem yourself.



Item	NSN
Cap screw	5305-00-269-3236
Lock washer	5310-00-011-5093
End cover	5340-00-124-7168
Gasket	5330-00-879-7160



M113-Series FOV Drain Hose NSN

The right NSN for the engine air box drain hose for all M113-series FOV—except the M741A1—is 4720-01-157-3800. This hose is 54 inches long. NSN 4720-00-812-0877, shown in TM 9-2300-257-20P and TM 9-2350-261-20P, only works on the M741A1. It is 38 inches long.

ITV Night Sight Hub Disks

You don't need the whole friction hub assembly just to get the disks for your M901-M901A1 ITV night sight. NSN 1240-01-075-7882 will get you the disk. Then, use structural adhesive kit, NSN 8040-00-145-0432, to help keep the disks in the hub where they belong.

M901 Cable

The CG-1773B/U cable assembly listed on Page 2-35 of your ITV's TM 9-2350-259-20P is NSN 5995-00-926-7939.

Element-ary Saving$

Need to replace the hydraulic fluid filter on your M60-series tank's stabilization system? If all you need is the element, order element kit, NSN 1015-01-031-0538. That will get you the element, back-up rings and packings. The filter, NSN 4330-00-288-6907 (Item 13 on Page 102 of TM 9-2350-253-20P-2) also gets you the housing. Order only what you need, and you could save Uncle more than $100.

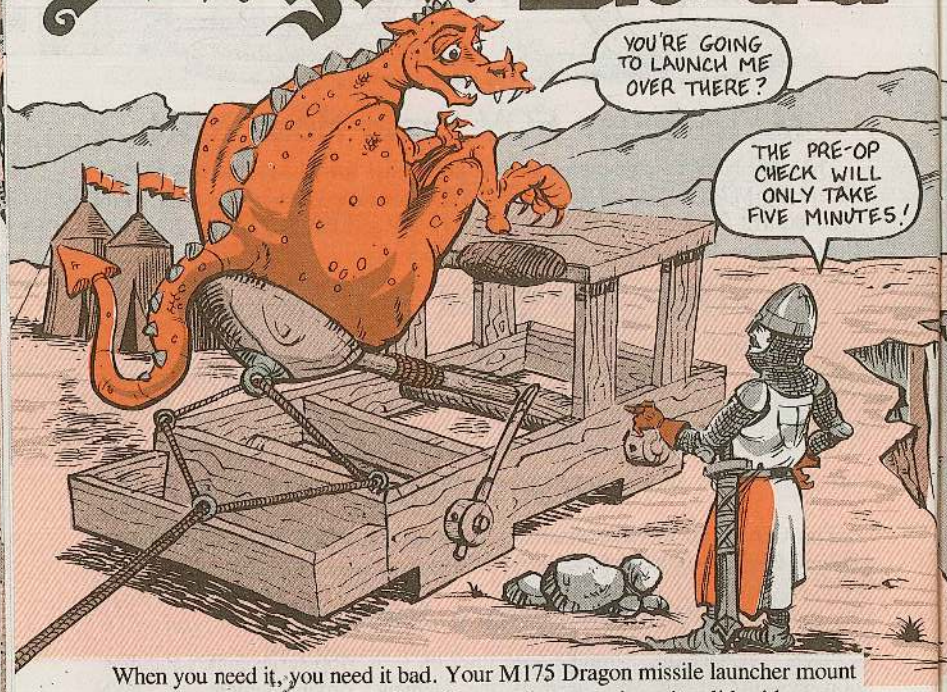
M109A3 Ground Hop Cable

The ground hop starter cable assembly found in TM 9-2350-217-24P/1 won't work on a converted M109A3. You need NSN 2590-01-115-2276.

NSN Added for BCC Door Stay

Get a left-hand folding stay for the door of your HAWK AN/TSW-11 battery control central (BCC) with NSN 5340-00-060-0122. The NSN will be added to TM 9-1430-1526-24P. Item 3, Fig 199, of the -24P, NSN 5340-00-789-0822, is for a right-hand opening door, which you don't have on your BCC.

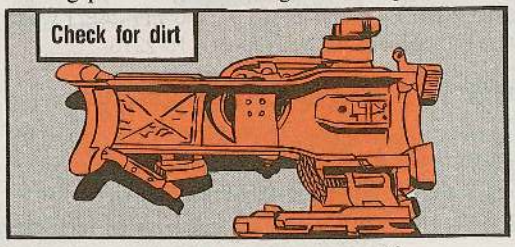
Dragon Launcher Mount PM



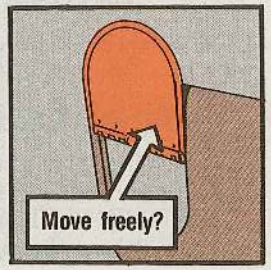
When you need it, you need it bad. Your M175 Dragon missile launcher mount makes a solid platform for missile strikes, and you can keep it solid with pre-op checks that'll take less than five minutes.

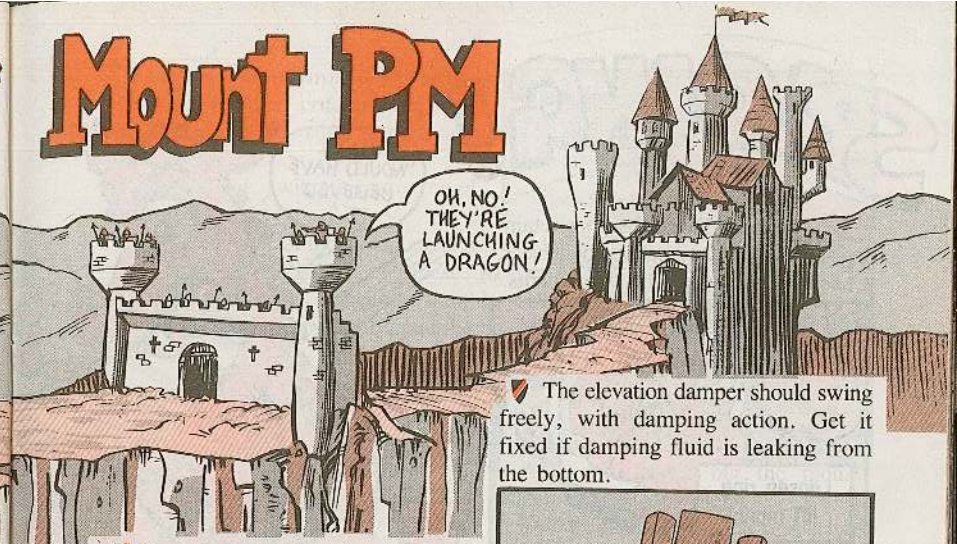
Here are some important pointers to keep you in business.

Eyeball the launcher surfaces for excess dirt and crud. Remove crud if it might interfere with operation. Also check for loose, damaged or missing parts. Fix them or get them repaired.



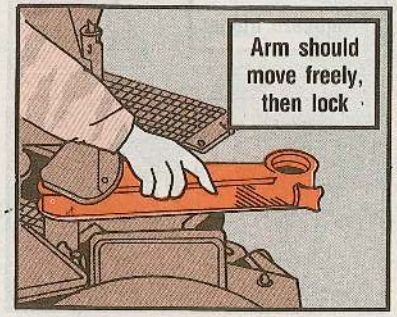
Push the door of the protective shield open. It should move freely.





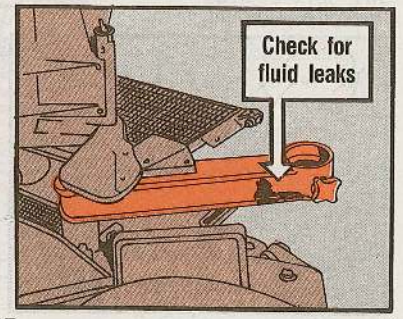
Remove the quick release pin and fully rotate the mount. It should turn smoothly.

Squeeze the handle on the swing arm assembly and rotate the arm toward READY-TO-FIRE position. Release the handle. The arm should move freely and then lock in position.



The elevation damper should swing freely, with damping action. Get it fixed if damping fluid is leaking from the bottom.

Move the azimuth damper cradle left and right. It should be smooth with damping action. Check below the keeper knob on the swing arm for fluid leaks.



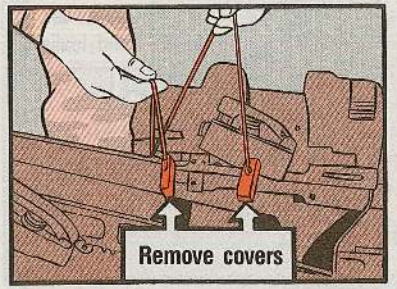
PS MORE

SPLOING!

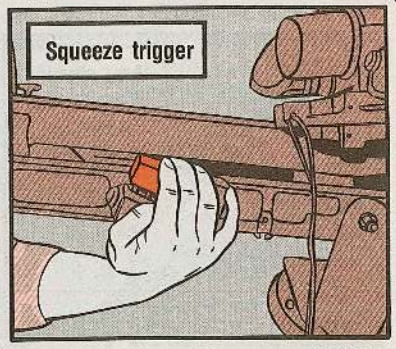
- Loosen the shock absorber retaining strap and lift the tracker mount clear. Check the mount for bends or dents.

- Put the tracker in the bracket and make sure its retaining clip secures it.

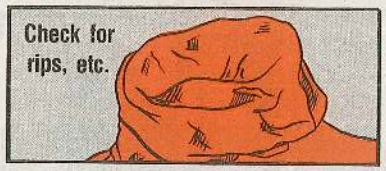
Remember to remove and reinstall the electrical connector covers from the tracker and mount.

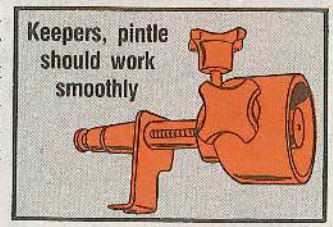


- Squeeze the trigger of the remote firing mechanism without touching the safety. The trigger should not depress. Then, push the safety button in and squeeze the trigger. The trigger should depress smoothly.



- Inspect the environment protective cover for dirt, crud, grease, rips and tears, and be sure the closure strips operate.
- Return the swing arm to travel position.
- The exterior of the tripod adapter should be free of dirt, oil or grease. Keeper arms and pintle should work smoothly, and the bottom keeper knob should lock the pintle at various heights.



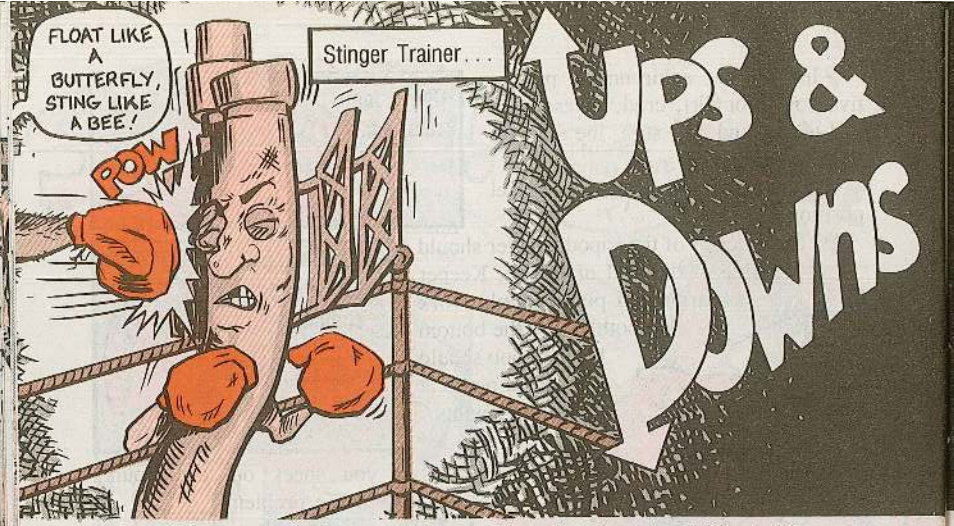


After you check out the mount, watch for these problems:

- The round won't seat properly.
- The tracker won't seat right.
- The cradle strap won't lock.

- Check 'em out, and get some help if you need it.
- Do the PMCS checks in Table 2-4 of TM 9-1425-484-10, with Changes 1 to 4. Now you're ready.

END



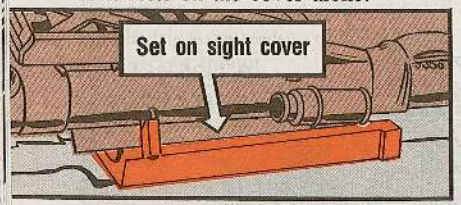
Ups & Downs & Ins & Outs

Your Stinger missile system trainer can get as punchy as a boxer past his prime for all that sparring it does.

Here are things you should do... and things you shouldn't do... to keep your trainer from taking it on the chin and going down for the count.

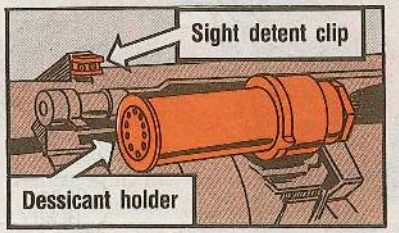
At Ease!

When you're not using your tracking head trainer (THT), store it in its container. If you can't stow it, set it down on the sight assembly. Set it down flat so it rests on the cover alone.



Do not stand the THT on either end. That can damage the front cover on the one end or the glass window on the other.

Remember that sight assembly side. If you set it down on the sight detent clip and desiccant cartridge holder, you can bend or break the clip and holder.

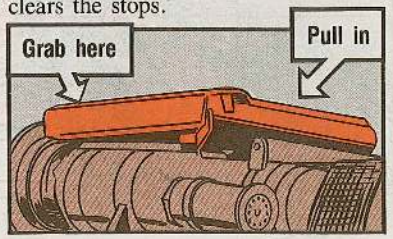


IFF Antenna

Opening the IFF antenna right gets you on target. Done wrong, it sends your trainer to the shop for repair.

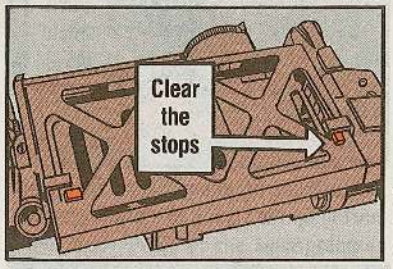
Do it right, like so:

Grab it at top center and pull in toward the launch tube. Pulling in clears the stops.



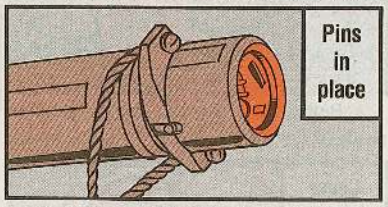
While pulling, slide the antenna out until it pops into place.

If you don't clear the stops, they'll break or the antenna will be damaged.



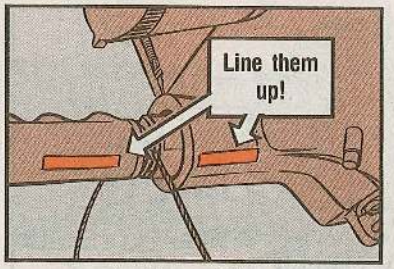
Disabled Cable?

Before you connect the IFF interrogator cable, look into the connector end for the three spring pins that lock it into place. The pins are spaced under the inside lip. If one or more pins are missing, get them replaced. That'll



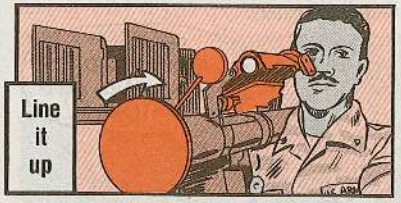
solve two problems. The connector will lock in place, and you won't bang up an expensive IFF cable—because it won't work loose.

To connect the cable without damage, first line up the white line on its connector with the white line on the pistol grip. Then, push it home.



Lollipop Time

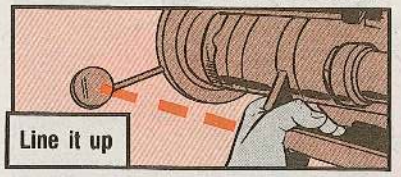
The lollipop attached to the front cover of the launch tube must be lined up with your sight to do its job. The



lollipop, as you know, is supposed to clue you that the front cover's in place...and should be removed... before you practice firing.

If it's not lined up, you defeat its purpose and waste time and shots.

Be sure the raised section on the IR



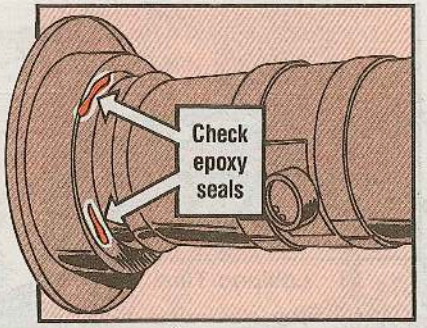
window retainer fits into the slot made by the bracket inside the front cover.

That should block the sight, but check it out to be sure.

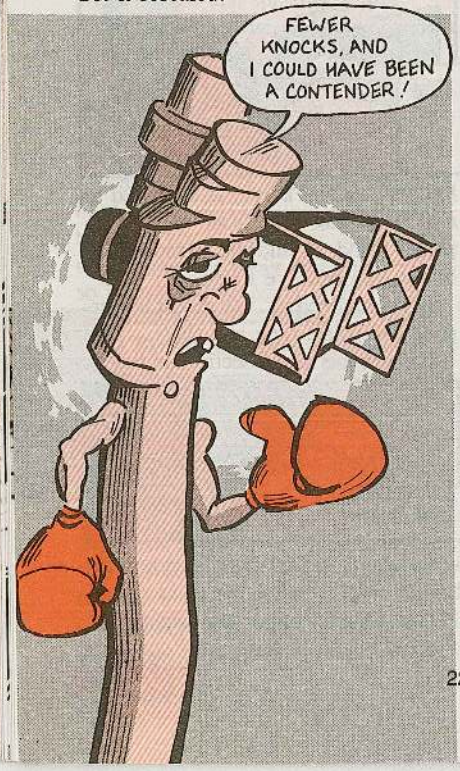
PS MORE

THT Epoxy

The protective shock ring on the rear of the THT is held firm with two strips of epoxy sealer (usually white).



Eyeball the sealer. If it's cracked, it'll allow the shock ring to unscrew. Get it rescaled.

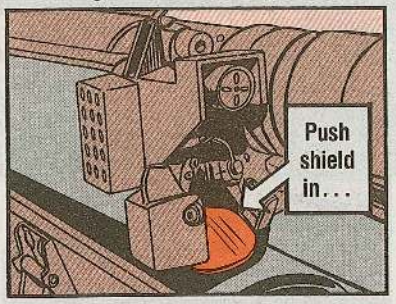


Stow It, But Don't Blow It!

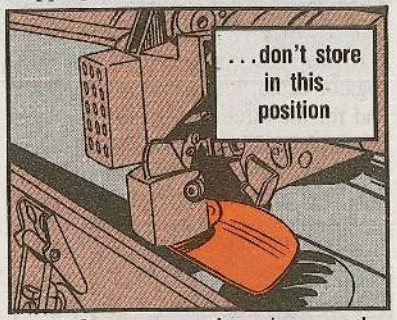
The Stinger system trainer can really take a beating if you're not careful when you stow it.

Here are ways to prevent some of the most common stowage damage:

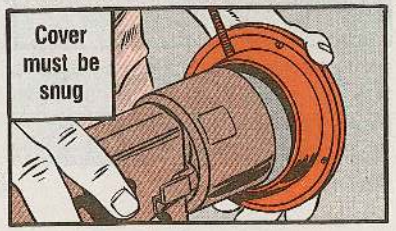
• Push the eyeshield forward... toward the launch tube front cover... before you set the trainer in its shipping and storage container. This prevents the



shield from breaking. It also prevents tearing up the styrofoam padding in the shipping case.



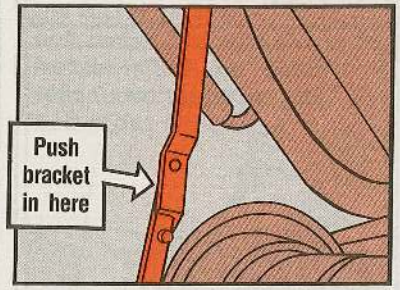
• Before you stow the trainer, put the front cover on the launch tube as snug



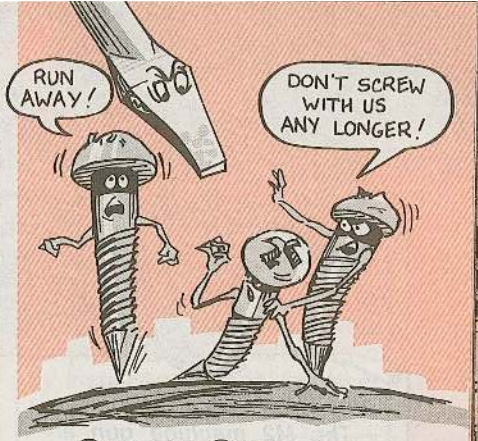
as you can. Clearance between the cover and the top of the case is tight. If the cover's not flush, either the cover or the case will be damaged when you close the case.

• Stay arm latches on the case must be released before you attempt to close the case cover. If you don't seat them loose, the stay arm brackets will bend or break.

Do this: Push in the latch release buttons (center of bracket) and down at the center of each bracket until the catch clears. Push toward the center of the



case. When the brackets can swing free, close the case. Slight pressure is all that's needed to slip the catch, so don't make bends by trying to prevent them.

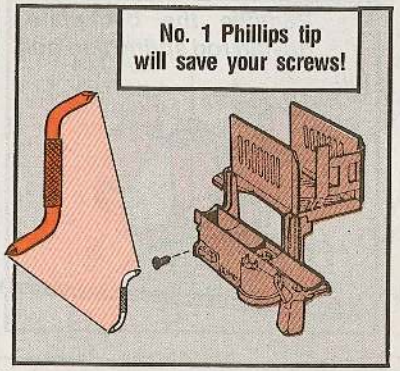


Screw Saver

Those small screws on the CAGE/UNCAGE and TRIGGER boots of your Stinger system gripstock assembly tear up easy if you try to remove them with a makeshift tool.

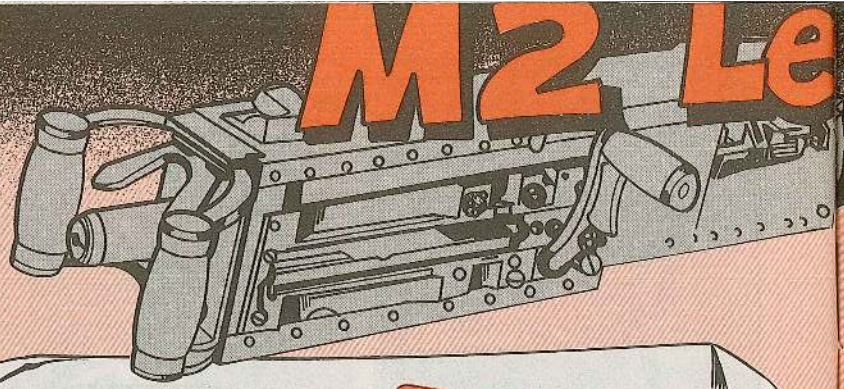
They take a No. 1 Phillips tip, which is what you have on one end of screwdriver, NSN 5120-00-256-9014.

The small screwdriver comes with boot sealing kit, NSN 1440-01-044-5068, listed on Page 2-9 of TM 9-1425-429-24P. If you don't have a screwdriver, get one with NSN 5120-00-256-9014... and save those screws.



PS END

M2 Lever Action



Dear Half-Mast,

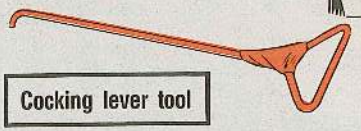
The M2 machine gun armorer's cocking lever tool on Page 5 in PS 376 works OK in the arms room.

However, in field or combat conditions, the tool might not be available.

Here's a way to cure the cocking lever problem without a tool.

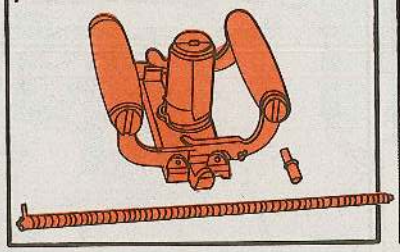
A sure sign that the cocking lever has been installed rearward on the bolt is failure of the bolt to retract more than half-way.

Do this:

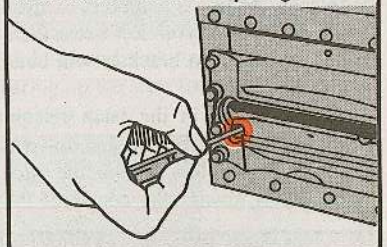


Cocking lever tool

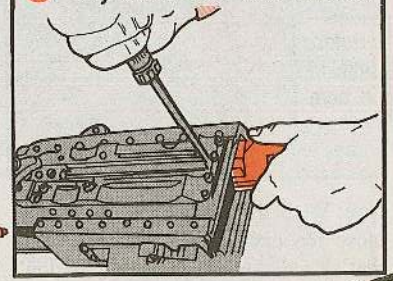
1 Remove the backplate, driving rod spring and bolt pin.



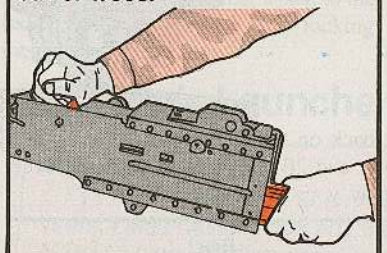
2 Retract the bolt as far as you can and press in on the buffer detent spring.



3 Slide the buffer assembly out about two inches.

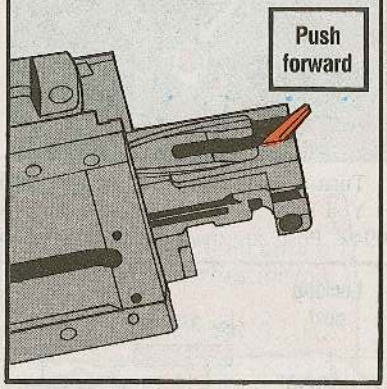


4 Slide the bolt forward whiie you pull the buffer to the rear (the bolt forces the accelerator down and allows the buffer to be removed). You may have to slide the bolt back and forth several times before the buffer frees.



5 When the buffer's out, push down on the front of the barrel extension. Slide the bolt out of the receiver. If the bolt hangs up, pull the extension forward and up until the bolt slides out.

6 Remove the barrel extension. Push the cocking lever forward and reassemble the parts. Finally, avoid all of this by installing the cocking lever forward on the first try.



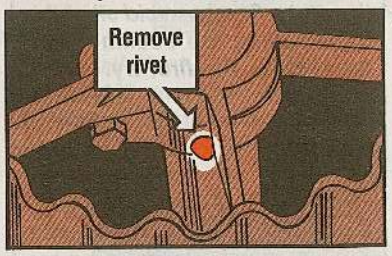
PFC C. McDowell
Fort Knox, KY

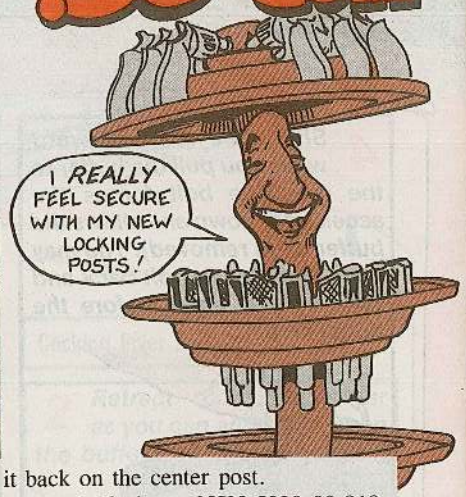
.38 Cal Rack Posts

When you invert the tray of your M1920 .45 cal pistol racks to store .38 cal revolvers, don't stop there.

You also need to install locking posts to meet security standards. Without the posts, the revolvers can be wiggled out of the rack.

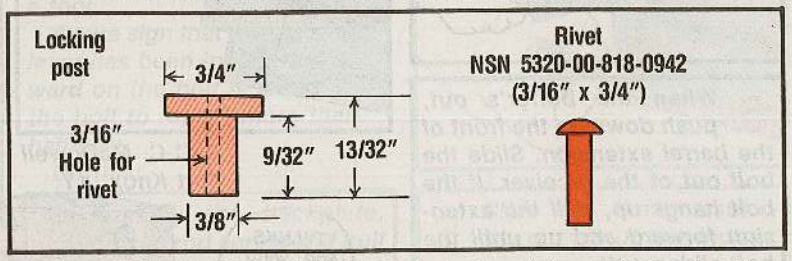
To do that, remove the center post rivet that holds each circular rack you need for your .38's.



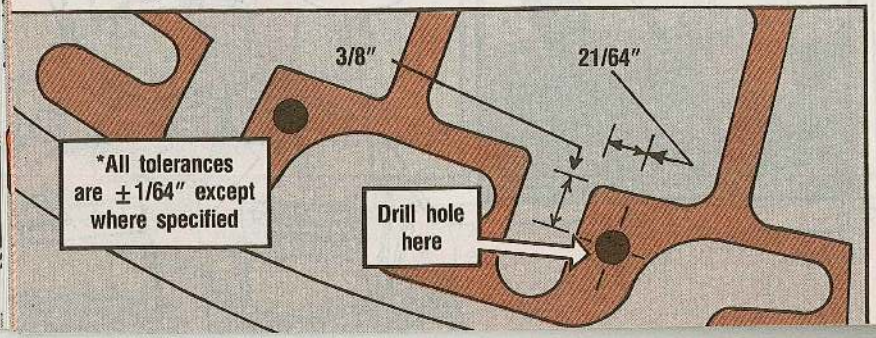


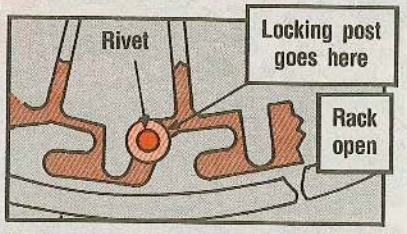
Turn the rack upside down and put it back on the center post.

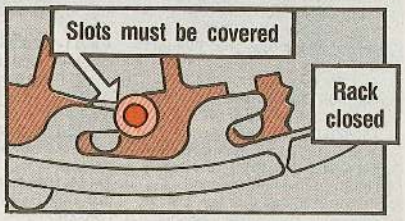
You need 20 locally made locking posts and 20 rivets, NSN 5320-00-818-0942. Posts are made from 3/4-in stock by your support.



With a 3/16-in drill bit, drill 20 holes in the inverted rack. Holes should be on the right hand side of each pistol slot, 3/8-in down and 21/64-in from the slot edge.







The locking post goes on the outside of the rack. Insert the rivet through the rack frame and into the post. Peen the rivets until each post is secured tightly to the rack frame.

When all posts are installed, rivet the rack to the center post.

Slide the rack closed to be sure that each pistol slot is covered completely by the metal shafts (pistol locks) which go through the trigger guards.

Reverse the revolver that's next to the lock...so that the lock and locking mechanism can clear.

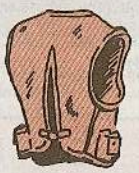
Pistol, Launcher Ammo Holders

Dear Half-Mast,
I've been trying to find an NSN for grenade launcher ammo vests. I also haven't had any luck with ammo pouches for the M1911A1 pistol. Can you help?
Sgt R.L.M.

Dear Sergeant R.L.M.,

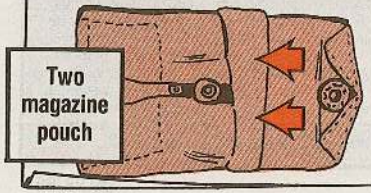
The M79 grenade launcher ammo vest will serve double duty with the M203. It holds 24 rounds. It comes in three sizes:

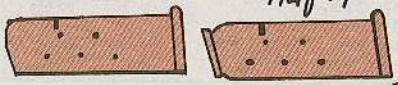
Small	**NSN 8415-00-146-1667**
Medium	**NSN 8415-00-146-1668**
Large	**NSN 8415-00-146-1669**

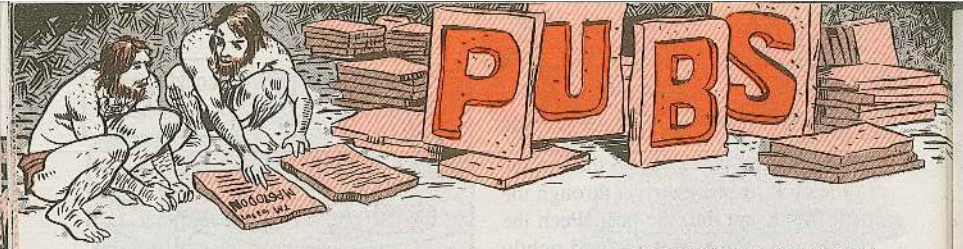


You can get a pistol pocket ammo pouch with NSN 8465-00-782-2239. Leather pouches are available for MP units under NSN 8465-00-269-0675. They each hold two magazines. CTA 50-900 is your ordering authority.

Half-Mast







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.

TM 5-3810-287-20P May Thew-Lorain L36M crane-shovel
TM 5-3895-275-20P May Barber-Greene SA-35 paving machine
TM 5-6130-301-13&P Jul Battery charging distribution panel
TM 9-1425-429-L May List of applicable publications, Stinger
TM 9-1425-1586-10-HR May Chaparral
TM 9-1430-1532-24P Jul HAWK
TM 9-2320-258-20P May M746 22 1/2-ton tractor trailer truck
TM 9-2320-260-10 Jun M809-series 5-ton trucks
TM 9-2320-269-20-2 Jun M876 telephone maintenance truck
TM 9-2330-371-14&P Dec 84 M270A1 lowbed semitrailer
TM 9-2350-266-10 Apr M981 armored fire support vehicle
TM 9-2350-266-L Apr List of applicable publications for M981 armored fire support vehicle
TM 9-4935-451-24P Dec 84 TOW 2 and TOW subsystem for M2/M3 Bradley
TM 9-4935-452-24P Jun TOW 2 field test set
TM 9-4935-485-24P Jun AN/TSM-84 test set, guided missile system
TM 10-3930-242-20P Apr MLT-6, MLT-6CH, ARTFT-6 6,000-lb RTFL's
TM 11-1520-237-23P May UH-60A helicopter system
TM 11-5815-334-10 Mar AN/GRC-122 and A-E, 142 and A-E teletypewriter sets
TM 55-1520-217-CL-1 Jun Operator's and crewmember's checklist, CH-54A
TM 55-1520-217-CL-2 Jun Operator's and crewmember's checklist, CH-54B
TM 55-1520-217-MTF-2 Jun Maintenance test flight manual for CH-54B
TM 55-1520-237-23-11 May AVUM and AVIM corrosion control manual, UH-60A
TM 55-1520-238-PMD Mar PMD checklist for AH-64A
TM 55-4920-436-13&P Apr Engine shop, Part No. SC 4920-97-CL-A60
TM 55-4920-437-13&P Feb Propeller/Rotor shop, Part No. SC 4920-97-CL-A67
TB 43-177 Apr US Army volt program for calibration activities
TB 43-0001-26-4 Jan EIR Digest: TOW heavy antitank/assault weapon system
TB 43-0001-30-5 Apr EIR Digest: Dragon medium antitank/assault weapon system
TB 43-0001-35-1 Apr EIR Digest: Nuclear weapons materiel
TB 43-0001-41-5 Apr EIR Digest: Construction equipment
TB 43-0001-44-4 Jan EIR Digest: US Army Electronics Materiel Readiness Activity
TB 43-0001-61-8 Jan EIR Digest: Test, Measurement and Diagnostic Equipment (TMDE)
TB 55-1520-237-20-59 Apr One-time inspection of UH-60A main gearbox dowell pins
TB 55-1520-237-20-60 Apr One-time inspection and replacement of UH-60A stabilator amplifier
TB 55-1520-237-20-61 Apr One-time inspection of UH-60A main rotor servo and input control rods for installation of bearing retention devices

SMART Messages

SMART Msg #54—Provides information concerning the use of the fuel servicing ground rod, NSN 5975-01-050-5707, for the M131-series 5,000 gallon fuel tanker, to improve safe handling in convoy movements, DALO-PLR 101301Z May 85.

SMART Msg #55—Announces the reinstatement of DA Form 2408-14, Uncorrected Fault Record, in a future change to DA Pam 738-750, DALO-PLR 131832Z May 85.

Maintenance Advisories

AMCCOM MA 85-18—Changes to TM 3-4240-279-10, Operator's Manual, Mask, chemical-biological: Field, ABC-M17, M17A1 and M17A2, AMSMC-MAR-C 091610Z May 85.

TROSCOM MA—Supplement to AMSTR-MES 221715Z Mar 85—One-time inspection of Generator Set, AMSTR-MES 201245Z May 85.

MICOM METL (Maintenance Engineering Technical Letter)—Missile Materiel, AMSMI-SN Apr 85.

TACOM SOU—Advisory Technical/Maintenance, CUCV M1008-series, fuel leakage from fuel filter assembly base, vacuum switch and seal O-ring, AMSTA-MTA 061600Z May 85.

TACOM SOU—Swimming ban for all M113-series FOV except M730, M667, AMSTA-MCB 311900Z May 85.

TACOM SOU—Operational, M113-series FOVs, including M901A1 ITV M981 FISTV, Warning to wait 2 minutes after turning power off the M19 periscope before disconnecting the cable, AMSTA-MCB 081900Z May 85.

TACOM SOU—Advisory Technical/Maintenance, M1 tank, warning that removal of powerpack must be done when vehicle is on level ground with both tracks blocked, AMSTA-MCD 141900Z May 85.

If you need a maintenance advisory, contact your direct support unit or your Logistic Assistance Office (LAO).

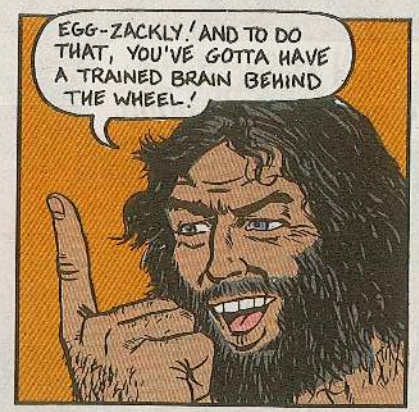

HI, CHIEF, EVERYTHING UNDER CONTROL ?
JUST WHO I WANTED TO SEE! I'M TRYING TO CONVINCE OL' ARCH HERE THAT HE CAN'T DESIGN TRAINING OUT OF EQUIPMENT OPERATION!


HE JUST CAME UP WITH A THING SO MY DRIVERS WON'T HAVE TO THINK ABOUT RELEASING VEHICLE PARKING BRAKES...


BUT I TOLD HIM HIS TIME WOULD BE BETTER SPENT IN TRAINING THE OPERATORS TO RELEASE THE BRAKES!

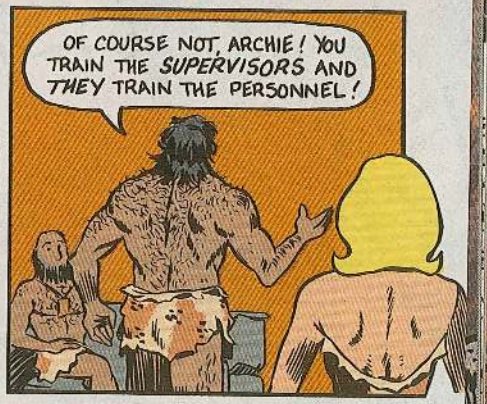

THAT MAY BE, BUT CHIEF, WHAT ABOUT THE LOW BRAKE FLUID INDICATOR I INVENTED LAST WEEK ?

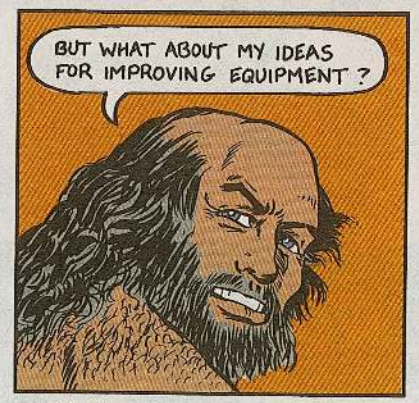

HE'S GOT GOOD IDEAS, BUT I'M WITH YOU, CHIEF - YOU'VE GOT TO BE READY TO GO WITH WHAT YOU'VE GOT!


EGG-ZACKLY! AND TO DO THAT, YOU'VE GOTTA HAVE A TRAINED BRAIN BEHIND THE WHEEL!

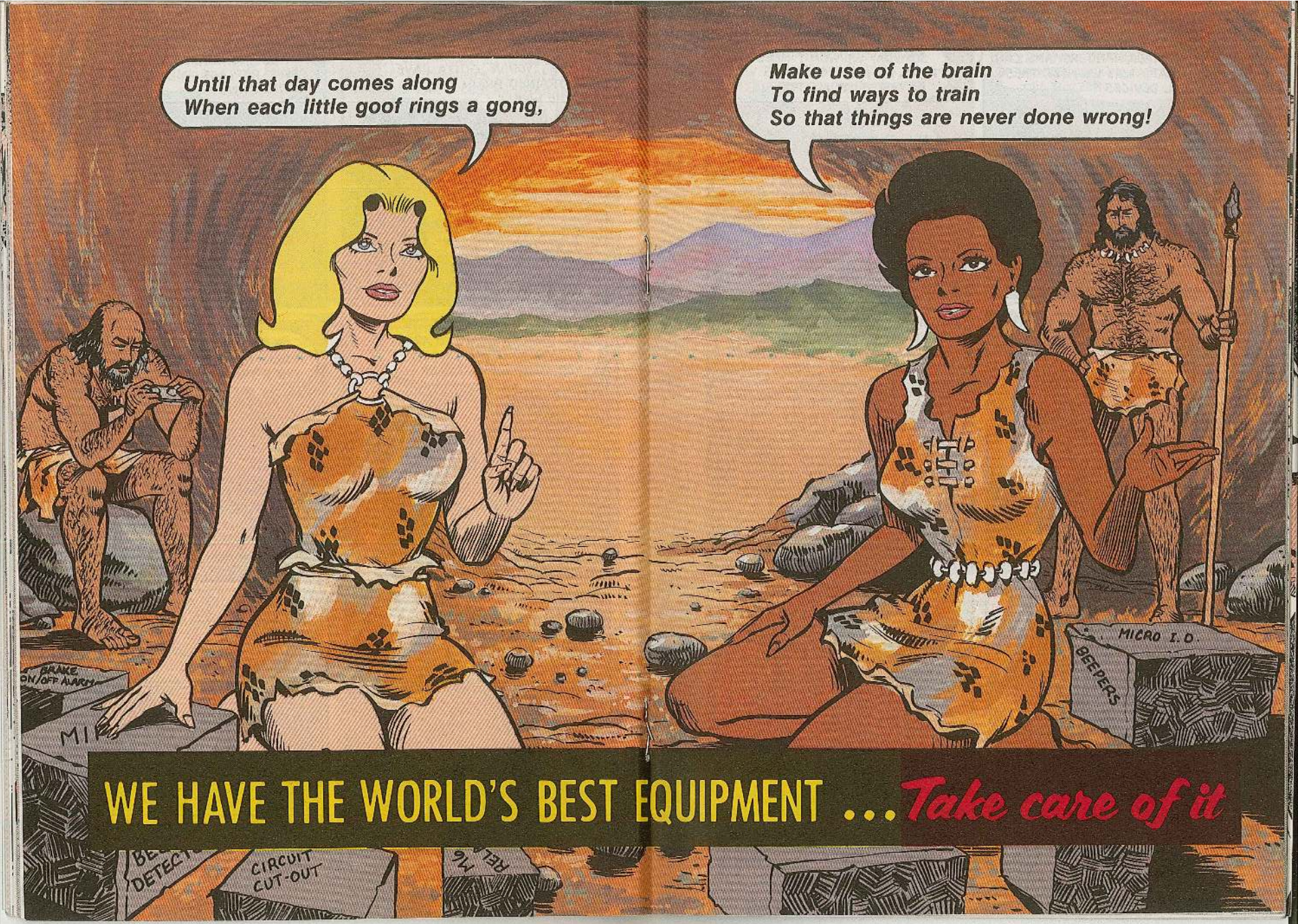

RIGHT! WARNING DEVICES CAN'T REPLACE THE NEED FOR TRAINING!


WELL, WHO'S GOING TO TRAIN ALL THESE OPERATORS TO DO THINGS RIGHT, HUH ?
AM I S'POSED TO TRAIN EVERY LAST ONE ?


OF COURSE NOT, ARCHIE! YOU TRAIN THE SUPERVISORS AND THEY TRAIN THE PERSONNEL!


BUT WHAT ABOUT MY IDEAS FOR IMPROVING EQUIPMENT ?

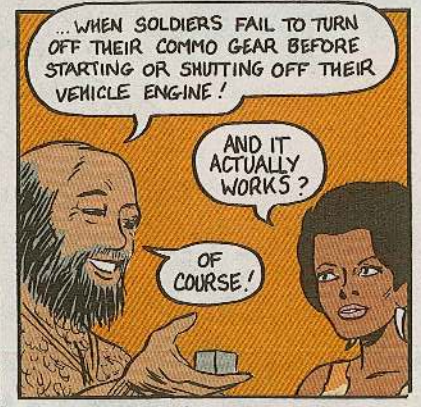

THERE WILL ALWAYS BE A NEED FOR NEW TECHNOLOGY! THE MOST SOPHISTICATED SYSTEM CAN FAIL, THO, AND NEEDS HUMAN BACKUP - AS THE ASTRONAUTS WELL KNOW!

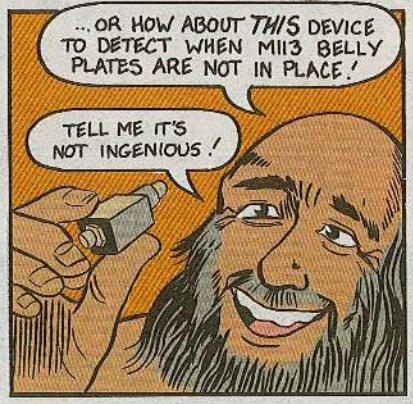

Until that day comes along
When each little goof rings a gong,
Make use of the brain
To find ways to train
So that things are never done wrong!
MICRO I.O.
BEEPERS
CIRCUIT
CUT-OUT
WE HAVE THE WORLD'S BEST EQUIPMENT ... Take care of it


ON THE OTHER HAND, HUMANS CAN FAIL! THAT'S WHY WE NEED THESE SPECIAL DEVICES!


SOMEDAY WE WON'T NEED TO THINK AT ALL - MACHINES WILL DO OUR THINKING FOR US!
AW, C'MON ARCH!

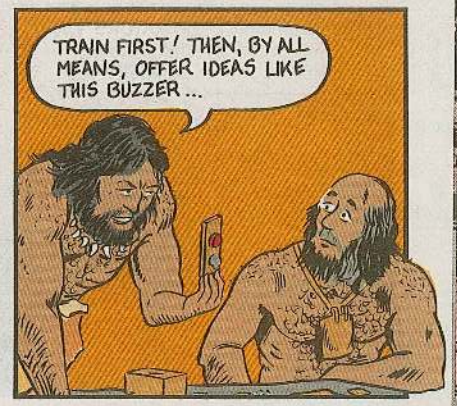

TAKE THIS, FOR EXAMPLE... MY CIRCUIT CUT-OUT TO PREVENT VOLTAGE SPIKES...


...WHEN SOLDIERS FAIL TO TURN OFF THEIR COMMO GEAR BEFORE STARTING OR SHUTTING OFF THEIR VEHICLE ENGINE!
AND IT ACTUALLY WORKS?
OF COURSE!


...OR HOW ABOUT THIS DEVICE TO DETECT WHEN M113 BELLY PLATES ARE NOT IN PLACE!
TELL ME IT'S NOT INGENIOUS!


GREAT FOR THE FUTURE! BUT YOU CAN'T FIGHT TODAY WITH TOMORROW'S EQUIPMENT!


MOST EQUIPMENT FAILURE CAN BE TRACED TO POORLY TRAINED OPERATORS!


TRAIN FIRST! THEN, BY ALL MEANS, OFFER IDEAS LIKE THIS BUZZER...


...OR THESE CLEANING CARTRIDGES SO SOLDIERS WON'T HAVE TO REMEMBER TO CLEAN THEIR RIFLES AFTER FIRING...


...AND A MICROCHIP TO SIGNAL STRAY TOOLS BEFORE THEY CAUSE FOD!


YOUR IDEA FOR AN AUTOMATIC TRACK TENSIONER IS INTERESTING - BUT IT DOESN'T HELP NOW!
SAY IT AGAIN!
RIGHT ON!

Lock 'em Out!

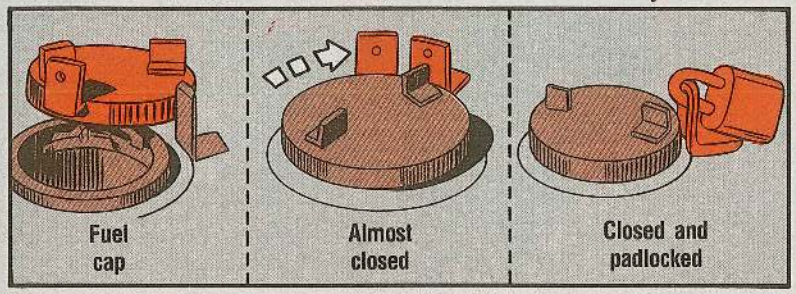
Dear Half-Mast,
Help! What's the best way to lock vehicle fuel tank caps to discourage fuel filchers?
CPT J.B.

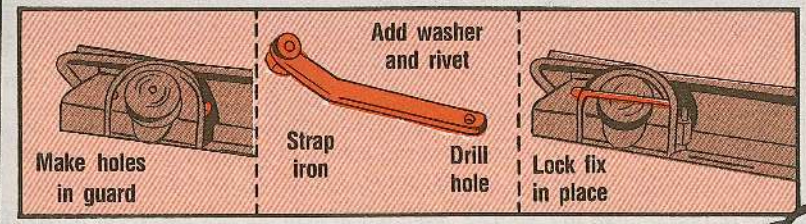
Dear Captain J.B.,

I'm not sure the best way has been thought of yet, Sir. If anyone out there has ideas, write PS and share 'em with the rest of the world. Send photos or sketches, if possible.

In the meantime, here're two ways I've seen.

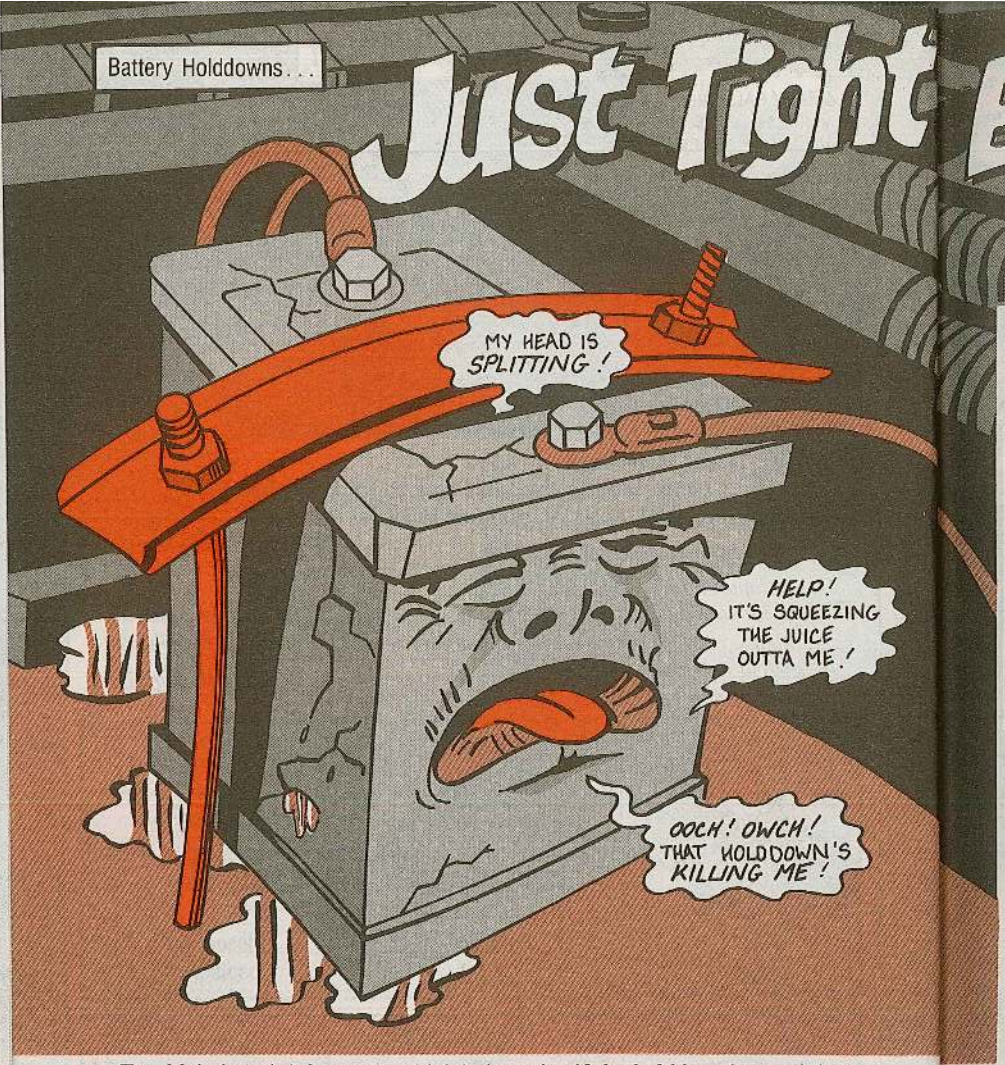
Half-Mast





Battery Holddowns...

Just Tight Enough's Right!

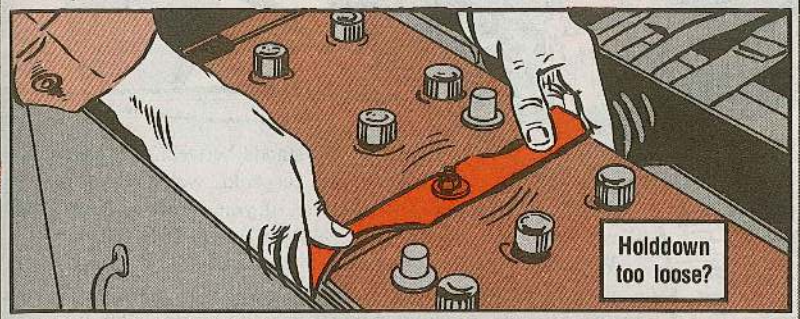


Trouble's brewin' for your vehicle's batteries if the holddown's too tight or too loose.

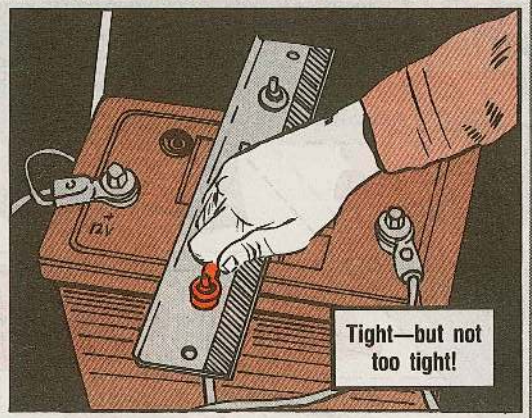
TOO SCREWED UP? There's a lot of pressure on a battery when the holddown's too tight. The top, sides and bottom of a battery are a lot thinner than you might think—and they're brittle. Squeezing too hard will break a battery! The battery case will crack. Acid leaks out and chews up any metal part it touches. Worse, the battery's shot!

BANGING AROUND? If the holddown's too loose, the batteries rattle around. They bounce when you're traveling on rough terrain. They crack!

You operators can tell when the holddown's too loose. Push and pull on the battery. If there's any movement, get your mechanic to tighten the holddown.



OFF TO A GOOD START! You mechanics can head off most battery cracking when you install batteries. Tighten the holddown in stages. Start by turning down the nuts until they're barely snug. Then try to move the batteries. Any movement? Tighten the nuts just a bit more. Check for battery movement and tighten as needed—but only enough to prevent movement.



When you've got it right, stop!

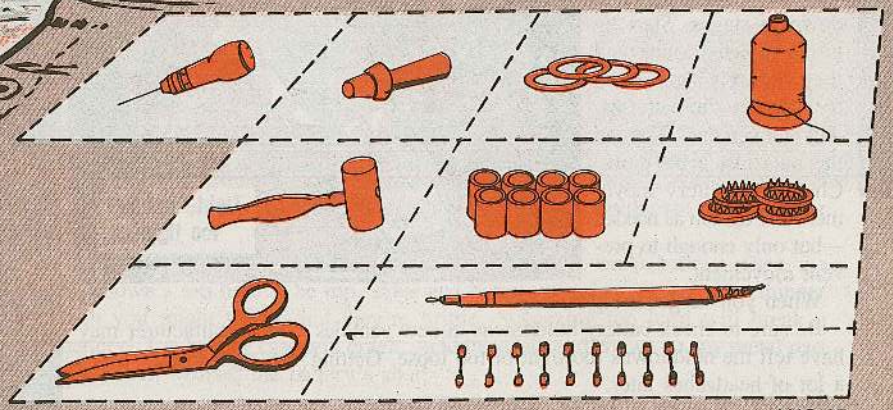
Be sure to check battery holddowns in new vehicles. The manufacturer may have left the holddowns too tight or too loose. Getting 'em right to start saves a lot of headaches later.

Canvas Needs Care Too!

Canvas is all that stands between a truck's cargo —or passengers—and the cold, wet world. That tarp will keep things dry, tho, if you regularly treat it with canvas preservative coating, NSN 8030-00-281-2346.

Wash off any dirt, oil, grease and mildew.

Check for any tears, holes, ripped seams and mildew-weakened spots. If you can stick your finger thru the fabric, patch it or have the panel replaced. Use the tentage repair kit, NSN 8340-00-262-5767, to make repairs. You'll find the word on using the repair kit in Chap 6 of FM 10-16. If you can't fix the damage using the repair kit, turn the cover in to DS for repair.



Replace any missing or broken ropes, buckles and straps.

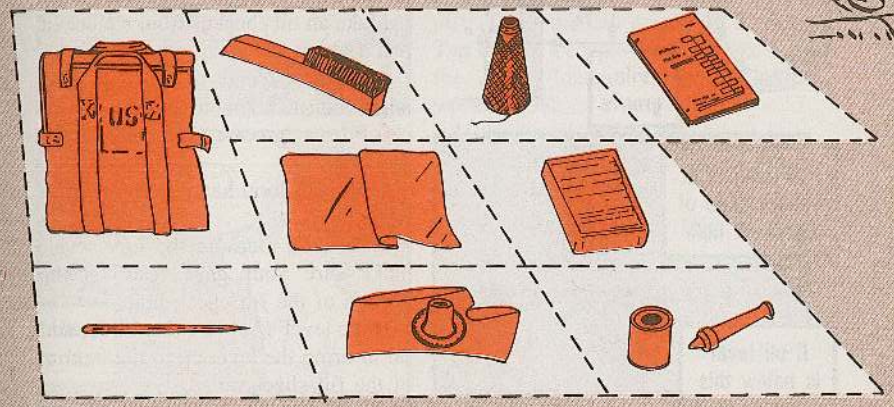
Put the cover on the truck. It's easier to apply the preservative that way, and the coating will dry faster.

The coating is **flammable** while it's wet, so don't smoke, and keep open flames away. Have a fire extinguisher handy, too.

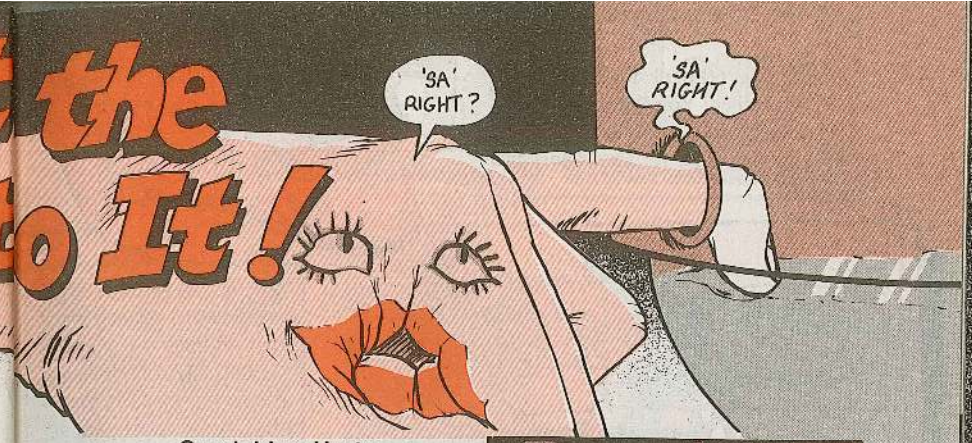
You'll find details on applying the coating on Page 2 of C2 to TM 10-8340-211-13. That's a tent TM, but you use the same procedure. Treating is also covered in Chap 14 of FM 10-16.

Let the first coat dry four hours, then coat the seams again.

Make sure the canvas is completely dry before taking it off the truck.



Put the Finger to It!



Lack of lube or overlube of a gear case can let your equipment down.

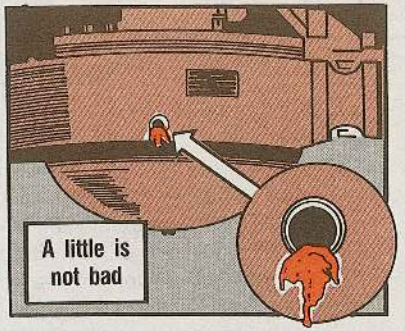
Too little lube and those gears get hot and chew on each other.

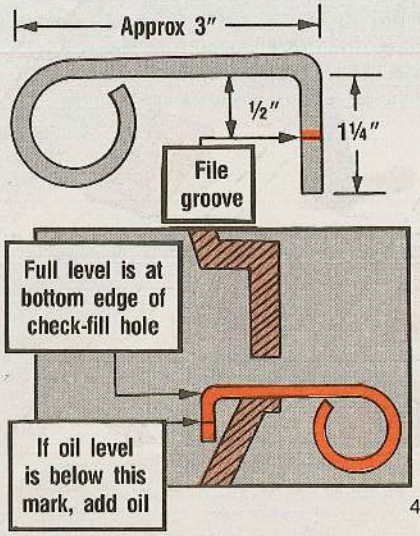
Too much lube and gear case seals blow.

When you're checking the lube level in your gear cases—differentials, transfer, manual transmission and the like, do it right:

- Park your vehicle on a level area.
- If you've been operating your equipment, wait five minutes before you take out the gear case fill/check plug. Heat expands the oil, so you need to let it cool and settle down to normal.
- Check the lube level. For most gear cases, it's OK if the lube level's within 1/2 inch of the bottom of the fill/check hole. But check your LO and TM to see if a different level is specified.

Measure the level by putting your little finger in the hole and bending the first joint down. If you can touch the oil, the level's OK.





Since a fat finger could wind up wedded to a gear case, you may want to use a gage.

Make an oil checker from a piece of metal about 1/4 inch wide, like so:

- Bend one end to make a right angle with a 1 1/4-in shaft.
- File a groove 1/2 inch down the shaft.
- Make a loop handle on the other end.

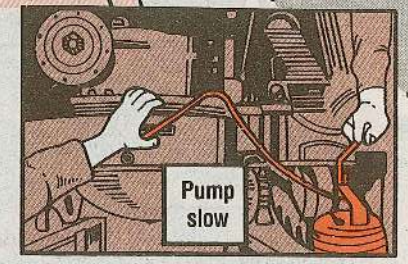
When you measure the lube level, make sure your gage rests on the bottom of the fill/check hole.

If the level's below the groove, add oil to bring the level up to the bottom of the fill/check hole.

Overlubing Hurts

Pumping too fast can build up lube in the gear case. Gear operation makes heat. Heat expands the lube. Too much lube blows seals.

Pump slow and easy. Then wait a couple of minutes before replacing the fill/check plug. Let any excess oil drain out.



Relieve Pressure

You're not done yet! Check the gear case breathers to make sure they're doing their job.

Breathers can plug up with mud or dirt. Twist the cap to get rid of dirt. Tap the cap a coupla times to make sure the spring-loaded valve inside is working OK.

If the breather's no good, put in a new one. It's easier—and cheaper—than replacing blown seals.

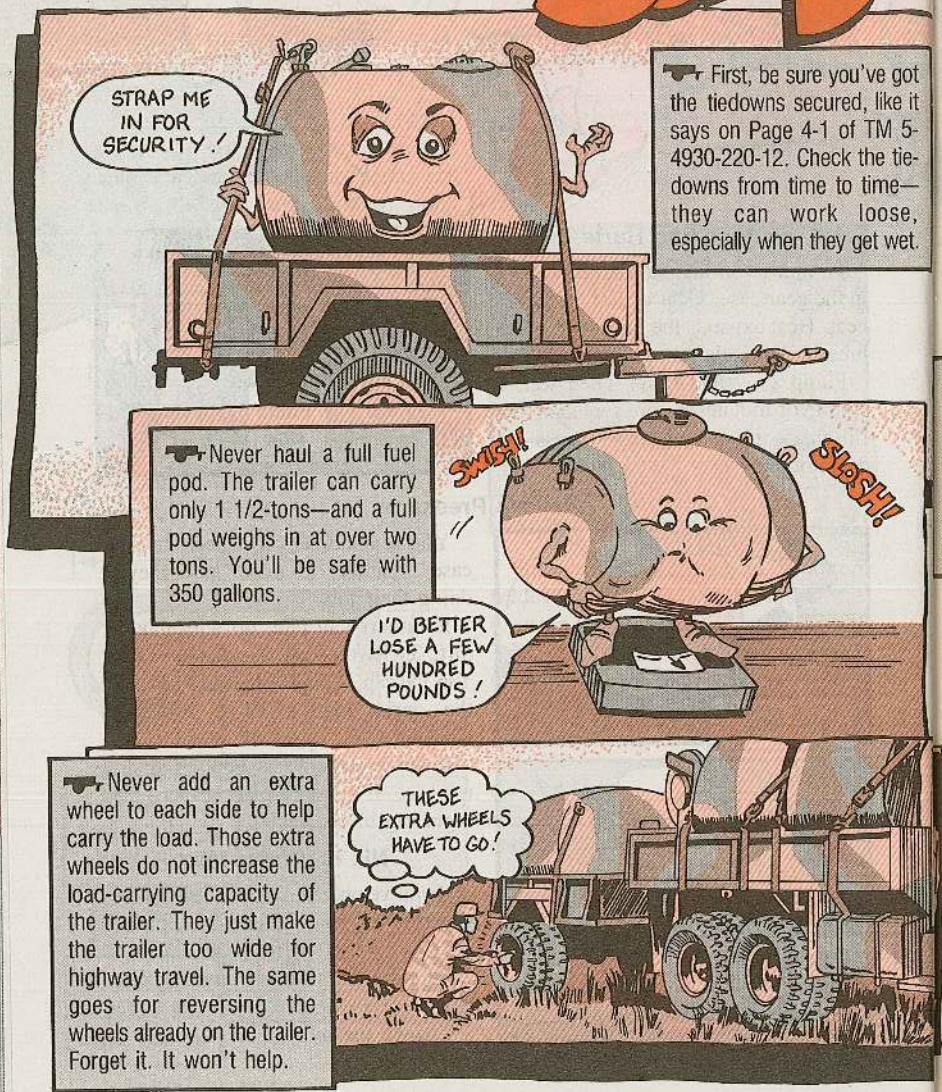
Nix on Water Mix

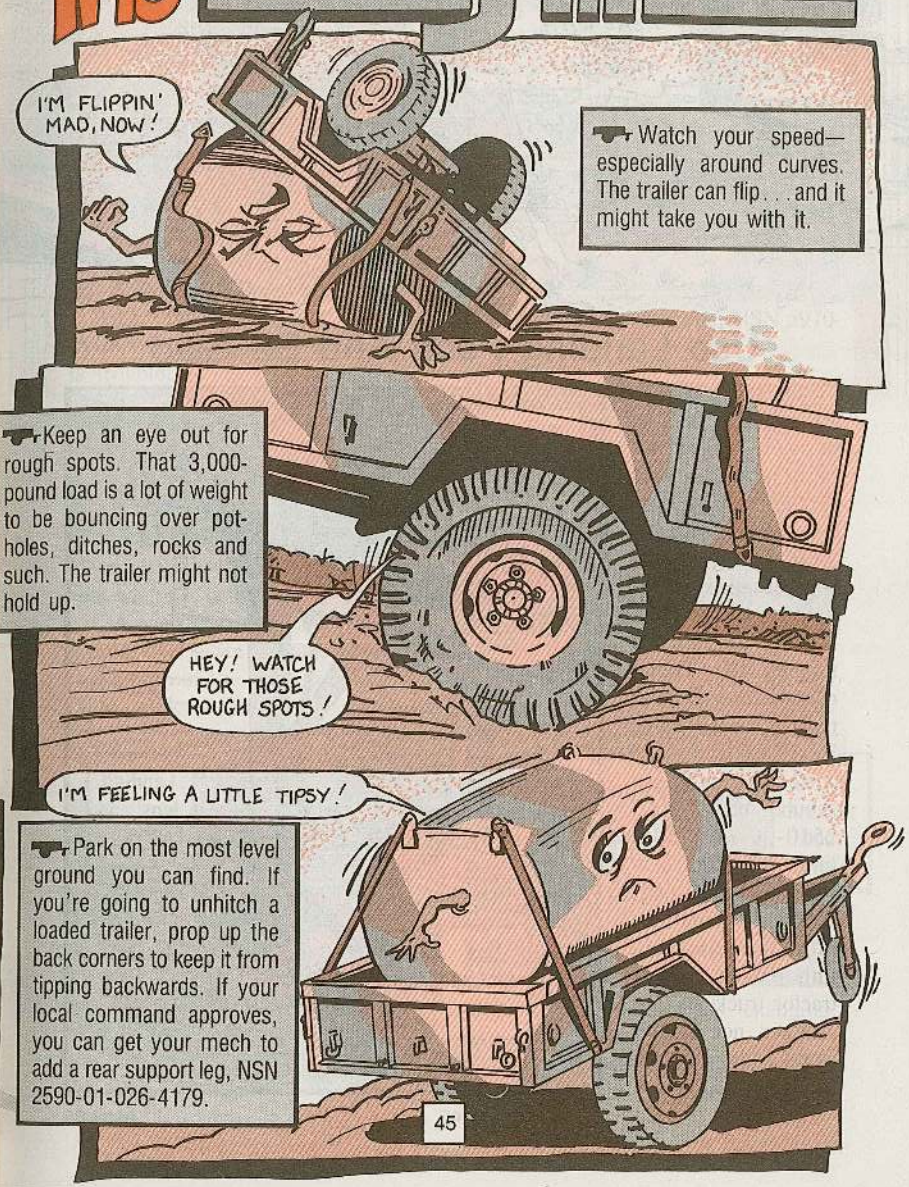
If you've operated in axle-deep water, you can bet your rubber duck there's water in the differential. Water-contaminated oil is mighty poor lubricant.

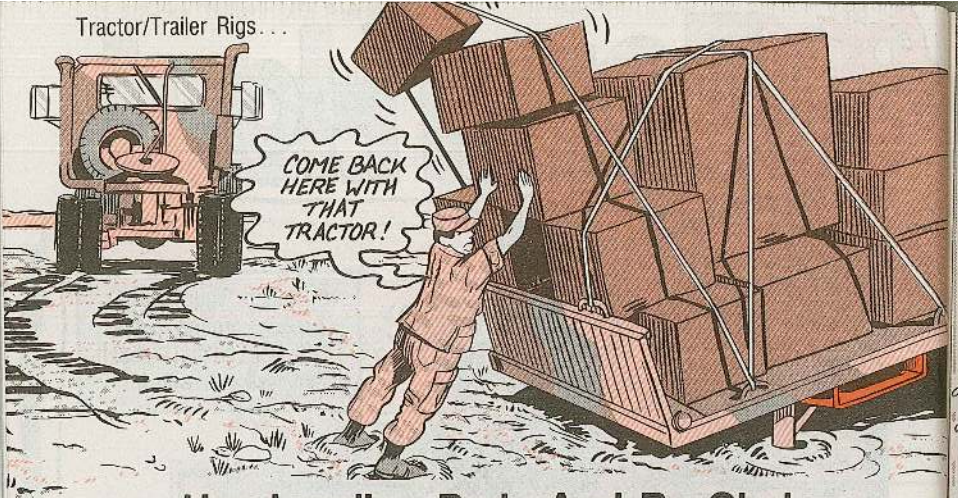
Change the oil!

Safety for the Long Haul

Hauling a 600-gal fuel pod on a 1 1/2-ton trailer? You'll head off equipment damage—and possible accidents—if you don't push the trailer past its limits.







Use Landing Pads And Be Glad

Soft soil can give you a sinking feeling, as your semitrailer's landing gear legs slowly disappear.

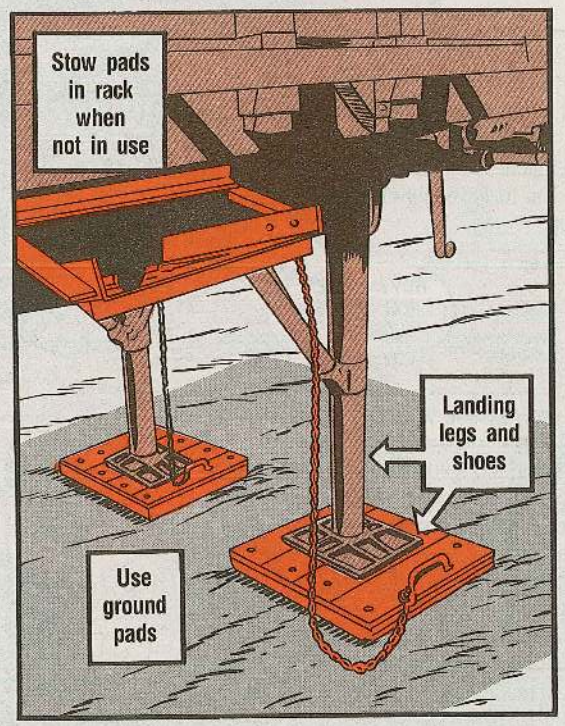
A heavy load—whether cargo or fuel—pushes the shoes into mud, sand or snow.

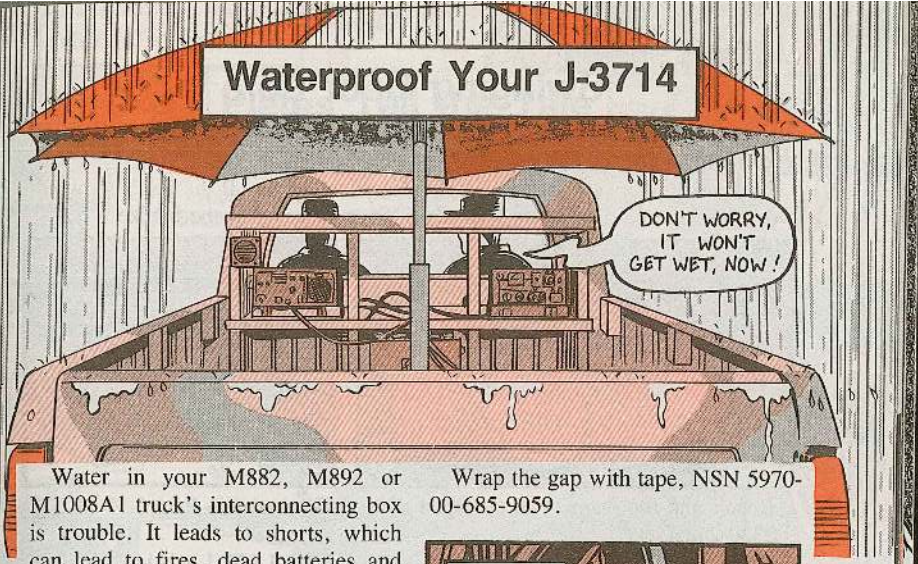
Cargo can shift and tumble off. Trailer damage may include twisted, bent landing legs.

Beat this. Use ground pads, NSN 2510-00-741-7585, under the shoes.

Center the pads before lowering the landing legs and unhooking your tractor truck.

When not in use, stow pads in their racks.



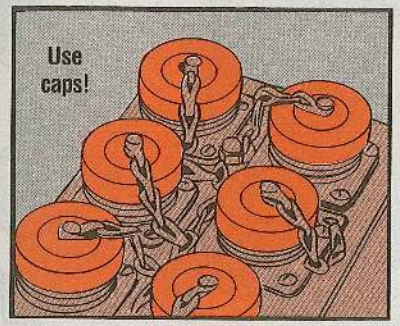


Water in your M882, M892 or M1008A1 truck's interconnecting box is trouble. It leads to shorts, which can lead to fires, dead batteries and melted cables.

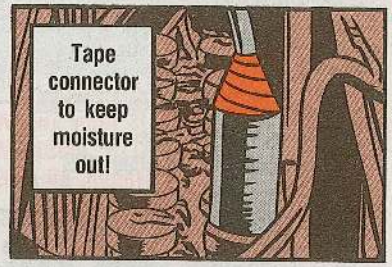
The box sits in the truck's cargo area in all kinds of weather, bringing power from the truck to your radios. Some of that weather is very wet. Here's how to keep water on the outside where it belongs:

- Always put on a connector receptacle's cover when you take off a cable.

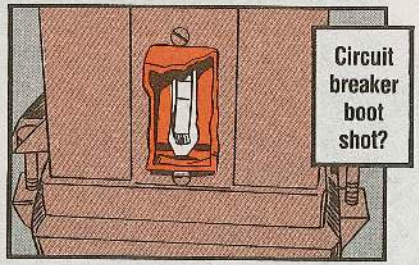
Waterproof the connectors on your radio cables. Water can shoot the gap between the connector case and the cable.



Wrap the gap with tape, NSN 5970-00-685-9059.



- Make sure your circuit breaker boot has no cracks. If the boot, NSN 5925-01-040-8963, needs changing, your support does it.



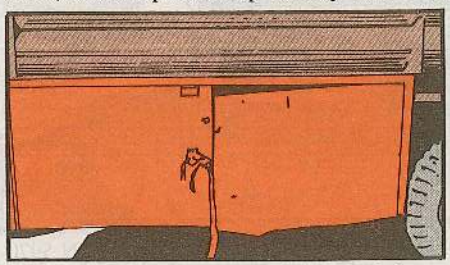
That NSN and many others are in the box's TM 11-5820-862-13&P.

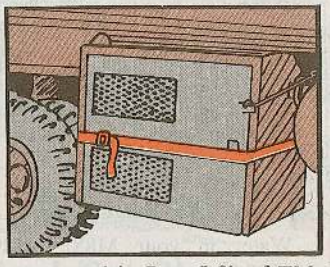
M131-Series Semitrailers...

Swinging Door Lore

Unlatched cabinet doors on your M131A5 or A5C fuel tank semitrailer will get battered, bent and busted by trees or poles along the road.

Make sure doors are fastened shut before moving out. If the fasteners won't work, use a rope or strap to keep them from flapping in the breeze.





Repair and replacement of damaged doors are covered in Para 5-9b of TM 9-2330-272-14&P.

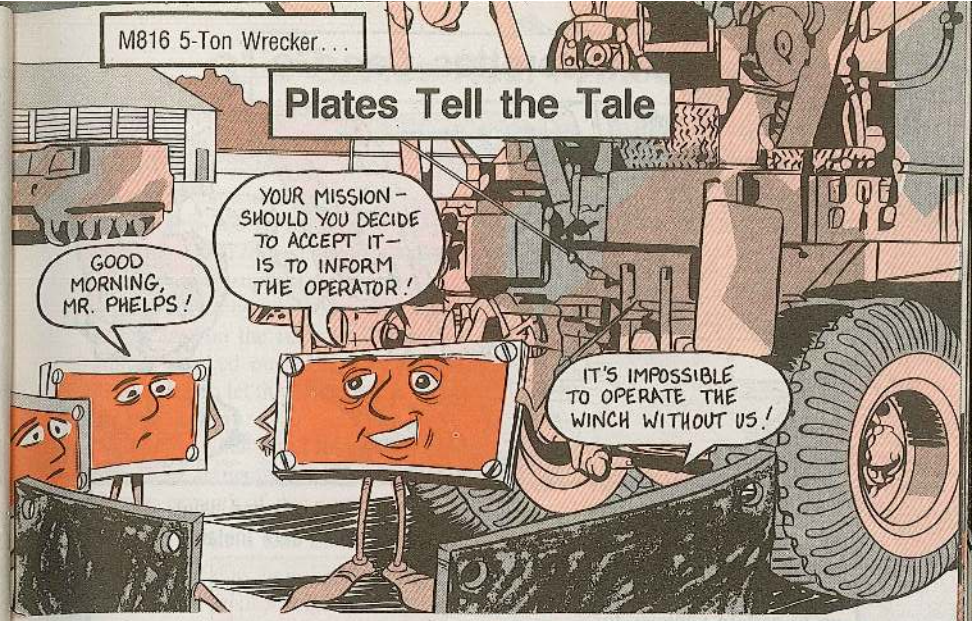
Should cannibalization be a problem, get your local LAR (Logistic Assistance Representative) to help in getting drawings so the doors can be fabricated, particularly on the M131A5. The address is:

US Army Tank-Automotive Command
ATTN: AMSTA-MVA
Warren, MI 48397-5000

For the 1st curbside door, the drawing number is 11597404, and for the 2nd and 3rd doors, it's 11597412. FSCM 19207 is for both of 'em.

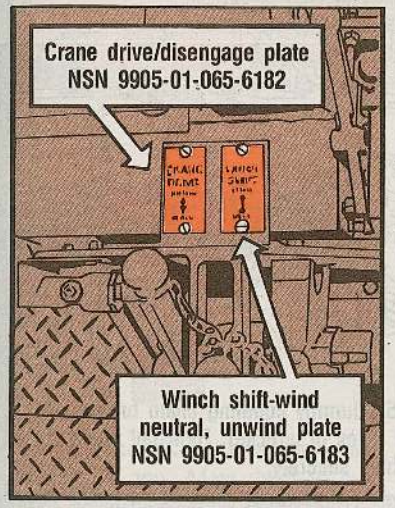
M816 5-Ton Wrecker...

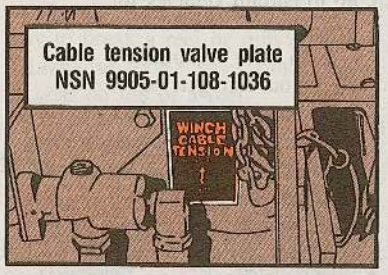
Plates Tell the Tale

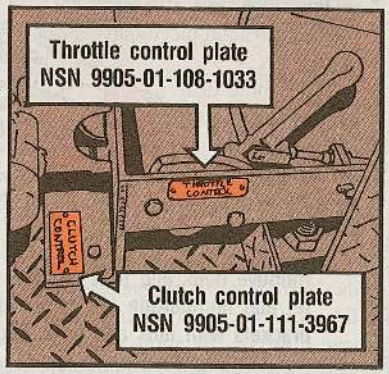


Unreadable or missing data plates for rear winch controls might cause you to screw up winch operations.

Make sure those five plates are in place and readable:





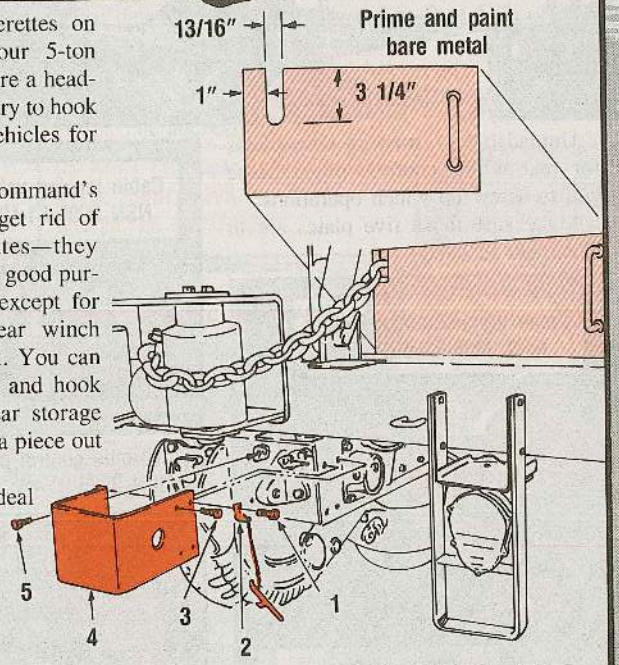


Bumperettes Can Go

Those bumperettes on the rear of your 5-ton wrecker truck are a headache when you try to hook up to certain vehicles for towing.

With your command's OK, you can get rid of the bumperettes—they don't serve any good purpose anyway, except for stowing the rear winch chain and hook. You can stow the chain and hook in the right rear storage box by cutting a piece out of the box.

This whole deal applies to the M62, M543-series, M816 and M936 wreckers.



Remove bolts and nuts (1), (3), (5), dummy coupling chain bracket (2) and bumperette (4) from both sides of wrecker. Reinstall chain brackets with nuts and bolts. Tighten securely.

Give Cables Reel Protection

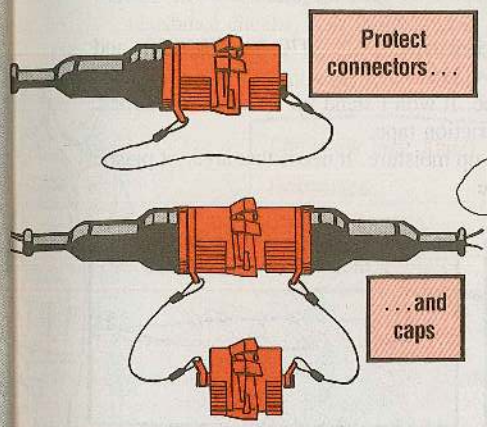
It's not speed that kills the CX-11230 cable when you pay it out—it's the sudden stop. That's the stop you get when you come to the end of a 1/4-mile reel before you're ready for it. Pop! goes the UG-1780 connector, and the cable goes to support.

Save cables by going slow and keeping an eye on the reel. Have a set of signals worked out with your driver. Then you can let the driver know when the end is near.

Go slow when you reel the cable in, too. Have someone hold the connector off the ground, if you can.

Put a Lid on It

Another cable saver is protecting the connector when it's not hooked up. Use the caps, NSN 5999-00-136-9040. Be sure to use caps when you reel in the cable. They keep dust and dirt out when a cable slides across the ground.

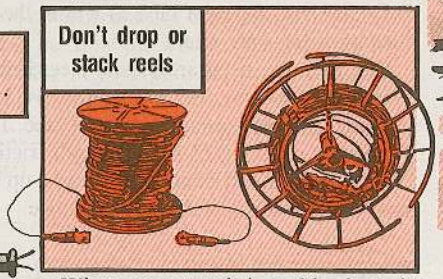


Protect the CX-10734 adapter cable connectors, too. Mate them to each other when they aren't being used.

The Reel Thing

Protect the cable when it's on the reel. Dropping a loaded RC-453 or DR-15B reel from the back of your truck is a quick way to unload it. It's also a quick way to break a reel or ruin a cable.

Likewise, don't stack other cables or gear on top of a reel.

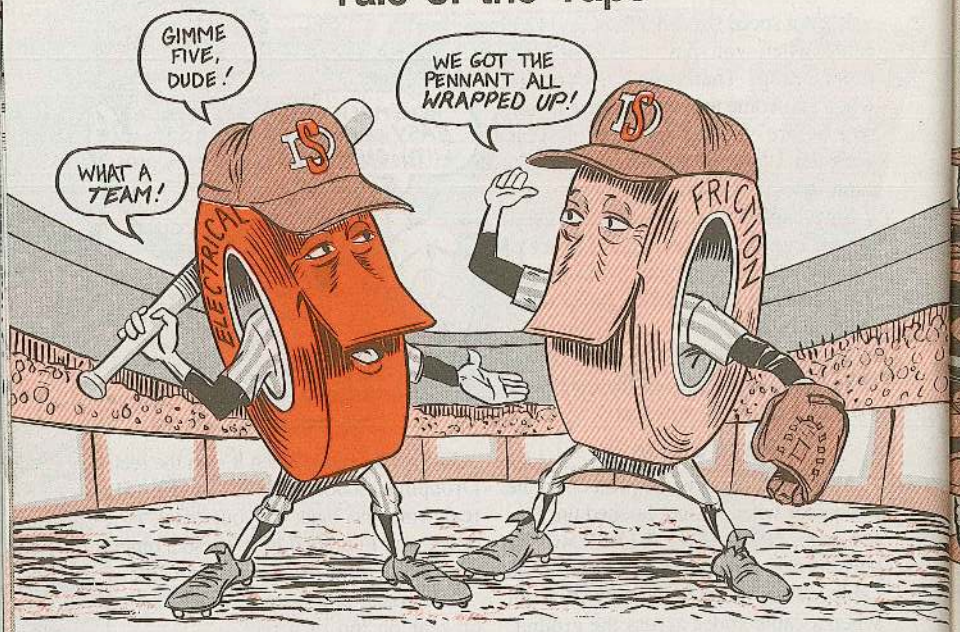


When you unreel the cable, keep it out of the way of foot and vehicle traffic. Those cables are fragile. Even a heavy foot can break internal wires.

That goes double in the winter when the cold makes insulation brittle. Even rough unreeling can damage a cold cable.

Warm it up first, if you can. All it takes is an hour or so in a warm shelter, truck cab or tent.

Tale of the Tape

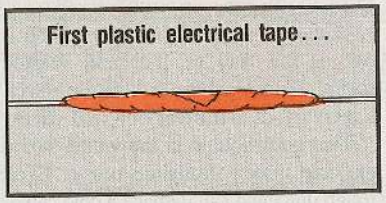


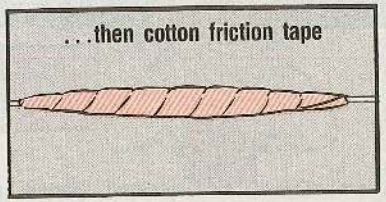
It takes two types of tape to win at the wire-splicing game. Some wiremen lose by using only one.

The two you need are plastic electrical tape, NSN 5970-00-685-9059, and cotton friction tape, NSN 5970-00-644-3167.

Some splicers use only electrical tape. It won't stand up to cuts and scrapes. It needs a covering of rough, tough friction tape.

Others use **just** friction tape. It soaks up moisture. It needs that layer of plastic tape underneath to waterproof a splice.

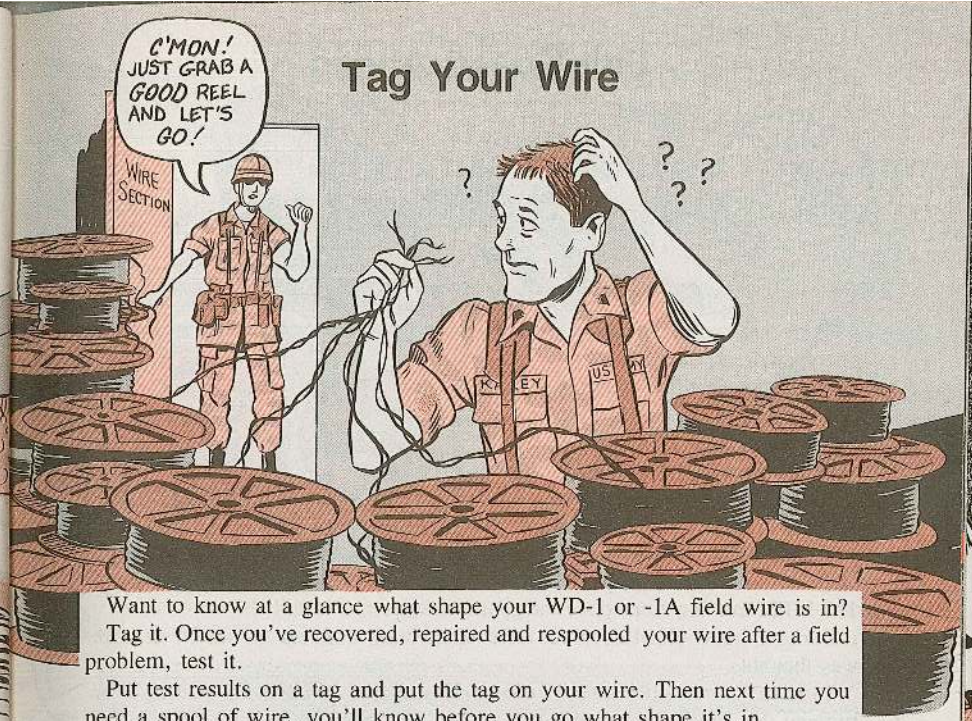




Combine the two and you've got a winning team.

For more good words on splicing techniques, see FM 24-20.

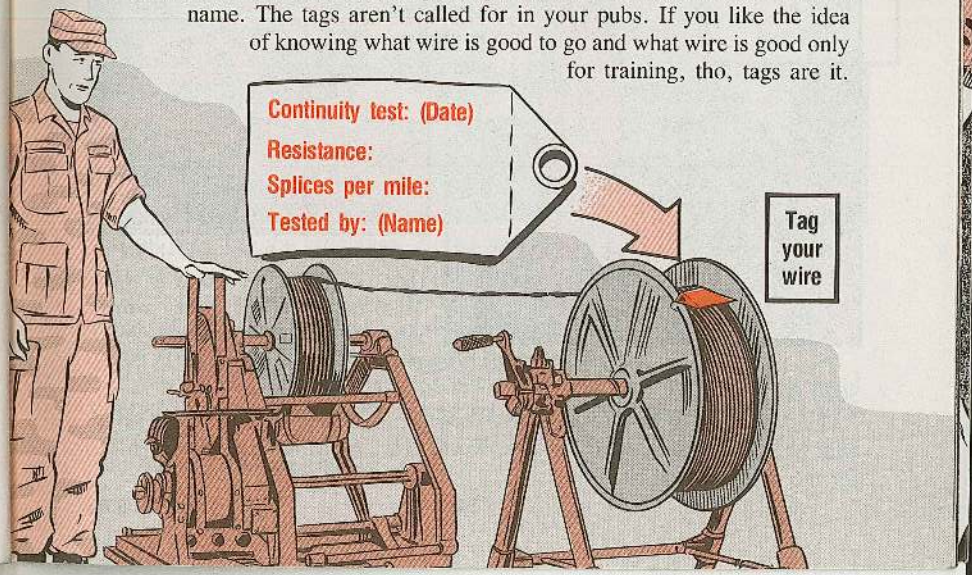
Tag Your Wire



Want to know at a glance what shape your WD-1 or -1A field wire is in? Tag it. Once you've recovered, repaired and respooled your wire after a field problem, test it.

Put test results on a tag and put the tag on your wire. Then next time you need a spool of wire, you'll know before you go what shape it's in.

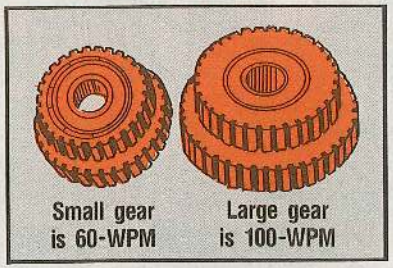
Good info to include on a tag is the date and result of the last continuity and resistance checks, how many splices per mile the wire has, and the tester's name. The tags aren't called for in your pubs. If you like the idea of knowing what wire is good to go and what wire is good only for training, tho, tags are it.



Full Speed Ahead

There are worms working in your teletypewriters, and there are some changes you need to know about.

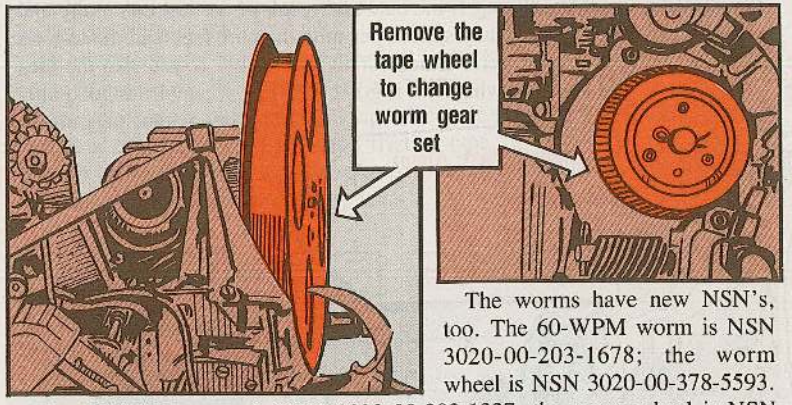
The worms are the worm gear and worm gear wheel. Two sizes of worm gear and gear wheels come with your TT's: a 60 words-per-minute combination and a 100-WPM combination.



The 60-WPM combination once came installed but is now the spare; and the 100-WPM combination, once the spare, now comes installed.

Using the 100-WPM does not increase the wear and tear on the TT as once was thought.

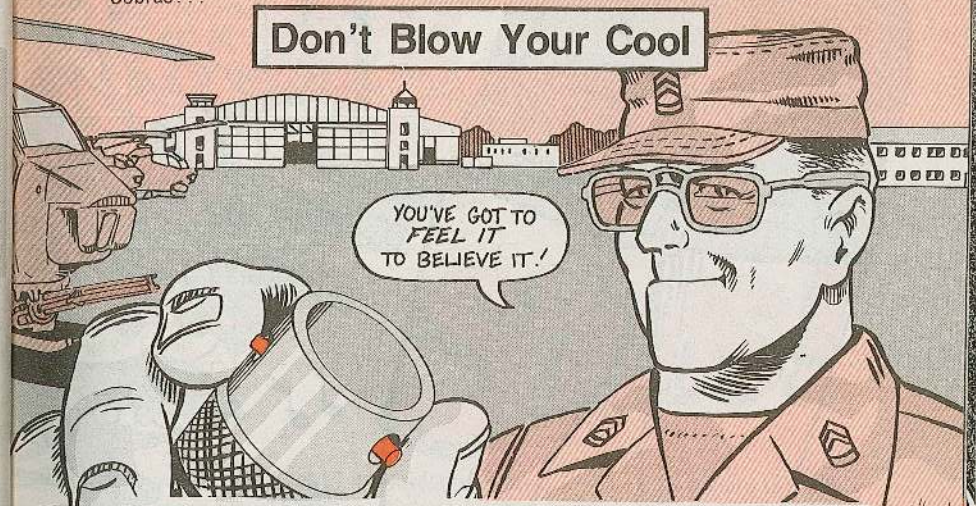
So save yourself the time of changing gears and readjusting your TT by running the 100-WPM combination and saving the 60-WPM till you need it.



The worms have new NSN's, too. The 60-WPM worm is NSN 3020-00-203-1678; the worm wheel is NSN 3020-00-378-5593. The 100-WPM worm is NSN 3020-00-203-1327; the worm wheel is NSN 3020-00-351-7944.

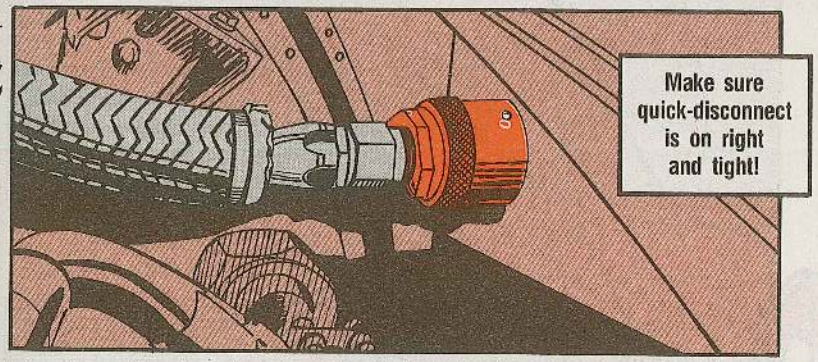
One last word—if NATO operations demand it, you can get a 66-WPM setup with NSN 3020-00-407-6161 for the worm gear and NSN 3020-00-407-6162 for the worm wheel.

Don't Blow Your Cool



Next time you install the oil line to your oil cooler, don't blow it! Your oil cooler, that is, and maybe your engine.

Make sure the quick disconnect is on right and tight. If you don't, the next time the bird flies, vibration could loosen the connection, closing the valve that



lets oil pass thru the oil cooler. No oil thru the oil cooler means hot oil. Hot oil means poor lubing. Poor lubing means engine damage.

To seat the connector firmly, push in and twist counterclockwise. When those three little pins pop out and stay out, the job's done.

But if they **don't** pop out—and stay out—start over.

If you get in a hurry or don't pay attention to what you're doing, you could easily be fooled. A visual check may not be good enough—the pins may look like they're out when they're not. So, caress that baby next time to make sure you **feel** the pins protruding.

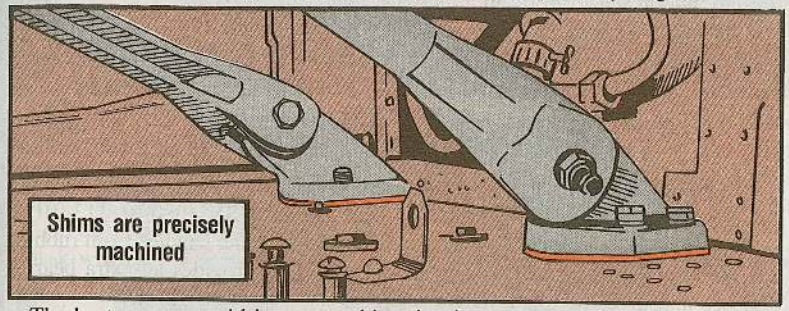
Never Take Chances with Shims!

True, aircraft shims aren't very sexy—not even when they're well stacked. Admittedly, it's hard to get excited about them, which may be why they don't get the attention they deserve.

But if you lose a shim—or can't remember which one goes where after you've removed an engine, transmission, pylon isolation mount or oil cooler mount—it could get embarrassing.

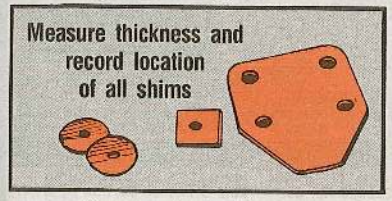
Worse yet, it could cost the Army big bucks. That's because your bird will need a complete fuselage alignment to determine the proper thickness of each shim replacement. That translates into special factory tooling by depot maintenance. It's the sort of mistake that could put you into the doghouse with your maintenance supervisor—permanently.

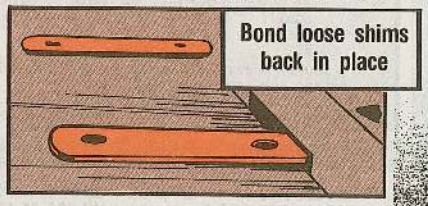
Losing or confusing shims is easy if you're not extra careful when removing power plant mounts and supports for maintenance. Shims are precisely machined and bonded to the fuselage to provide the exact amount of cushion under each mount fitting so that all components are perfectly aligned.



The best way to avoid improper shimming is to measure the thickness of all shims and record their locations on DA Form 2408-15.

To keep from losing shims that vibrate loose, bond them back in place as soon as you discover they're loose. Apply adhesive, NSN 8040-00-016-8662, around the outer edges of the shims to secure them. If they can't be rebonded to the fuselage right away, tag or mark them for positive identification and put them in a safe place.





OH-58 A/C . . .

Prevent Flight Control Problems

You Kiowa mechs can prevent a potential problem with your bird's tail rotor flight controls.

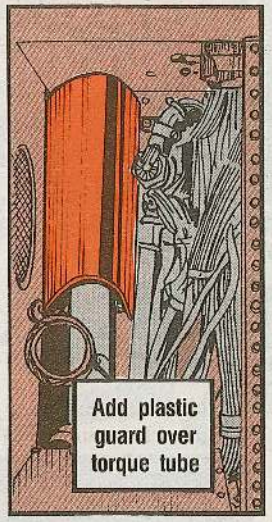
Here's the problem: the radio harness can rub against the tail rotor pedal torque tube, causing the tube to bind. And the last thing a Kiowa pilot needs is a binding tail rotor control.

So eyeball the radio harness. If it's too close to the tube, tie it out of the way. Use loop clamp, NSN 5340-01-050-1025. The instructions are in Para 14-29 of TM 55-1500-323-24.

If the clamp doesn't do the job, add a plastic guard over the torque tube. You need a sheet of plastic, NSN 9330-00-290-6493, and tape, NSN 7510-00-266-5016.

Cut a 5 1/2 x 9 1/2-in piece from the plastic sheet. Tape the edges. Slip the guard over the torque tube in the form of an arch. The weight of the harness keeps the guard in place.

This fix rubs out the rubbing.



UH-1 . . .

Escutcheon Plate Fix

If vibration is taking its toll on the escutcheon plates under the door handles of your Huey, stop the wear and tear with inserts, NSN 1680-01-113-0167.

The nylon inserts fit inside the escutcheon and keep the handles from rubbing on the thin aluminum edge of the escutcheon. This provides an extra bearing surface and gives the plate longer life.

Aviation Messages

Cat 1 EIR Phone: AUTOVON 693-2066 (24 hours)

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

OH-58-85-01, SOF, Technical, One-time inspection and replacement of main rotor pitch link assemblies on OH-58A/C, TB 55-1520-228-20-34, 191700Z Apr 85.

UH-60A-85-07, SOF, Emergency, Immediate grounding and inspection of flight controls on UH-60/EH-60 series, 051200Z Apr 85.

UH-60A-85-08, SOF supplement to previously released emergency message, immediate grounding and inspection of flight controls on UH-60/EH-60 series, 082145Z Apr 85.

UH-60A-85-09, SOF, Emergency, immediate grounding of UH-60/EH-60 series aircraft, 190600Z Apr 85.

UH-60A-85-10, SOF, Technical, One-time inspection of UH-60/EH-60 series, 222000Z Apr 85.

UH-60A-85-11, SOF, Maintenance Mandatory, UH-60A, One-time inspection main rotor spindles, 292345Z Apr 85.

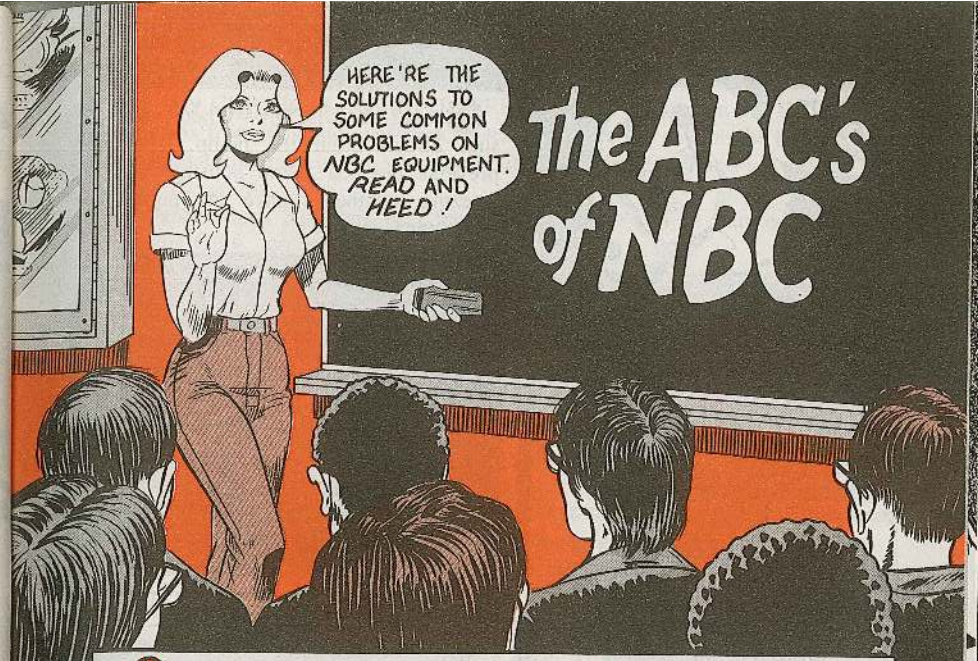
UH-1-85-03, SOF, Maintenance Mandatory, UH-1 and EH-1 series, recurring inspection and lubrication of swashplate bearing, 092235Z Apr 85.

UH-1-85-04, SOF, Technical, One-time inspection of all UH-1 and EH-1 series for Chem Fab Left and Right Hand Elevator Assemblies, 182010Z Apr 85.

MIM-GEN-85-MEM-02, Paint application, 291300Z Apr 85.

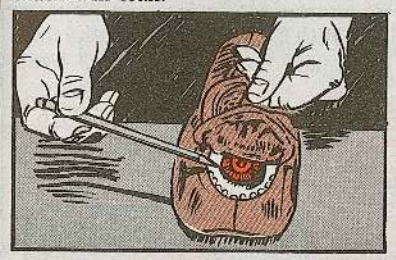
MIM-CH-47-85-01, Part A, CH-47 fiberglass blade fairing repair; Part B, water exclusion - CH-47 fiberglass rotor blades, 051400Z Apr 85.

MIM-CH-47-85-02, Wiring error in CH-47D helicopter, ALQ-156/XM-130 installation, 222030Z Apr 85.



A M17-SERIES MASKS—Do **all** of the Table 2-1 PMCS in TM 3-4240-279-10. Be extra careful when you check the outlet valve assembly disk. If it's dirty, damaged or missing, your mask will leak.

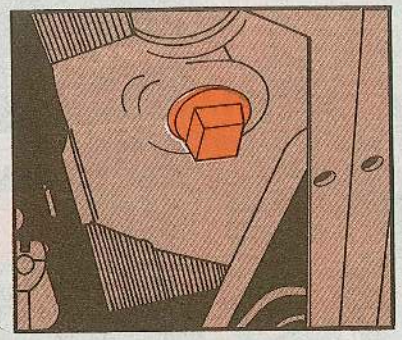
- Find a pro or study the TM if filters and filter flap buttons give you a flap when you remove or install the filters. Damaged filters and ripped flaps do you no good.



B MOPP SUIT—Be sure you get **your** size protective suit and gloves when your **suit** is issued. The wrong size is more hindrance than help.

- Unless you need the warmth, you can wear your overgarment without fatigues.

C M12A1 DECON—When you shut down, drain the pump. That prevents cracked pump housings in freezing weather. Leave the pump drain open.



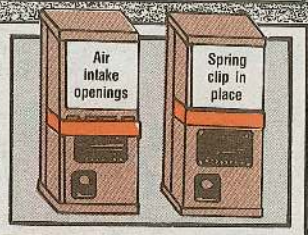
D M2 WATER HEATER—Don't forget to add motor oil in the quantities spelled out in your TM for gasoline and JP4 fuel. That prevents fuel pump seizure. You use diesel fuel straight, no motor oil added.

E M11 DECON—Thoroughly air dry the decon inside and out after training. Use corrosion inhibitor, NSN 6850-00-865-2916. That reduces rusting (it won't stop it).

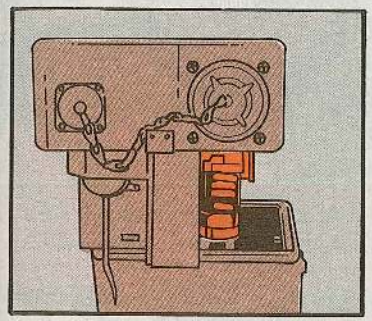
F M9 CHEMICAL AGENT PAPER—As soon as you remove the M9 paper box from its white over-pack, mark the expiration date on the box. Its operational life drops to one year in all but Arctic climates. It has a two-year life in the Arctic.

- Paper which has gone past the expiration date can be marked "For Training Only" on its box.

G M8/M13-SERIES FILTER UNITS—These combat vehicle gas particulate filter systems have a spring clip which prevents water from damaging the filters and blower motor. Replace the clip after use to keep water out. It goes over the air intake opening of the housing and precleaner assembly. Use the M39 airflow tester to support PMCS checks.



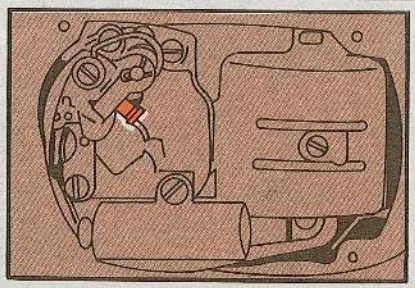
H M8 CHEMICAL AGENT ALARM—Replacement detector cells need a one-hour break-in before normal operation. Otherwise, your readings can be off.



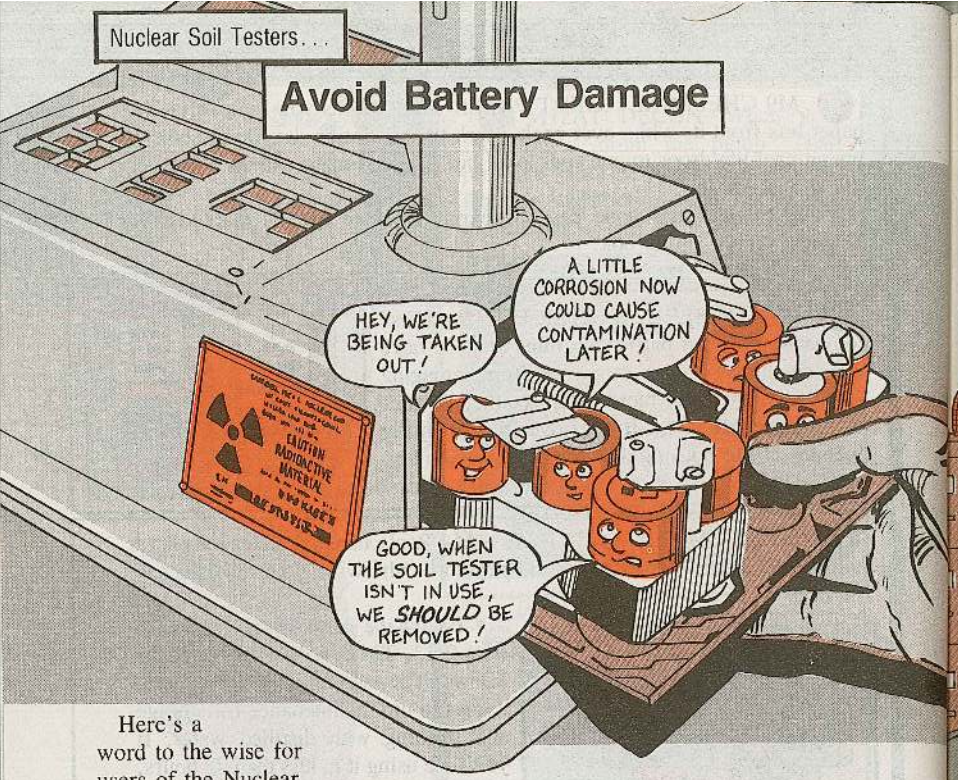
- Follow the shutdown procedures in Para 2-13, TM 3-6665-225-12. If the M8 won't be used for 72 hours or more, it goes to unit maintenance for storage and flushing with distilled water. If you'll be using it in less than 72 hours, empty the reservoir and reinstall it empty. Use a fresh solution for operation. Follow Para 2-13.
- Give your Direct Support a shot at repairing the pump before you request a new one.

I M3A3 SMOKE GENERATOR—If you run out of fog oil during operation, shut down. Operating without fog oil for two minutes or more will damage your engine. . . or start a fire.

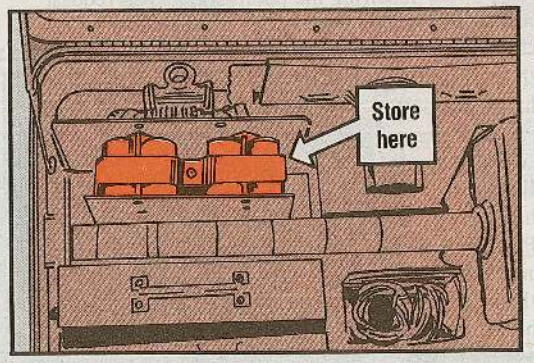
- Mechanics, forget that "0.15" misprint in Para 4-15c(5), Page 4-10 of TM 3-1040-202-12. Magneto breaker points must be set at 0.015-in if the generator is to run smoothly.



Avoid Battery Damage



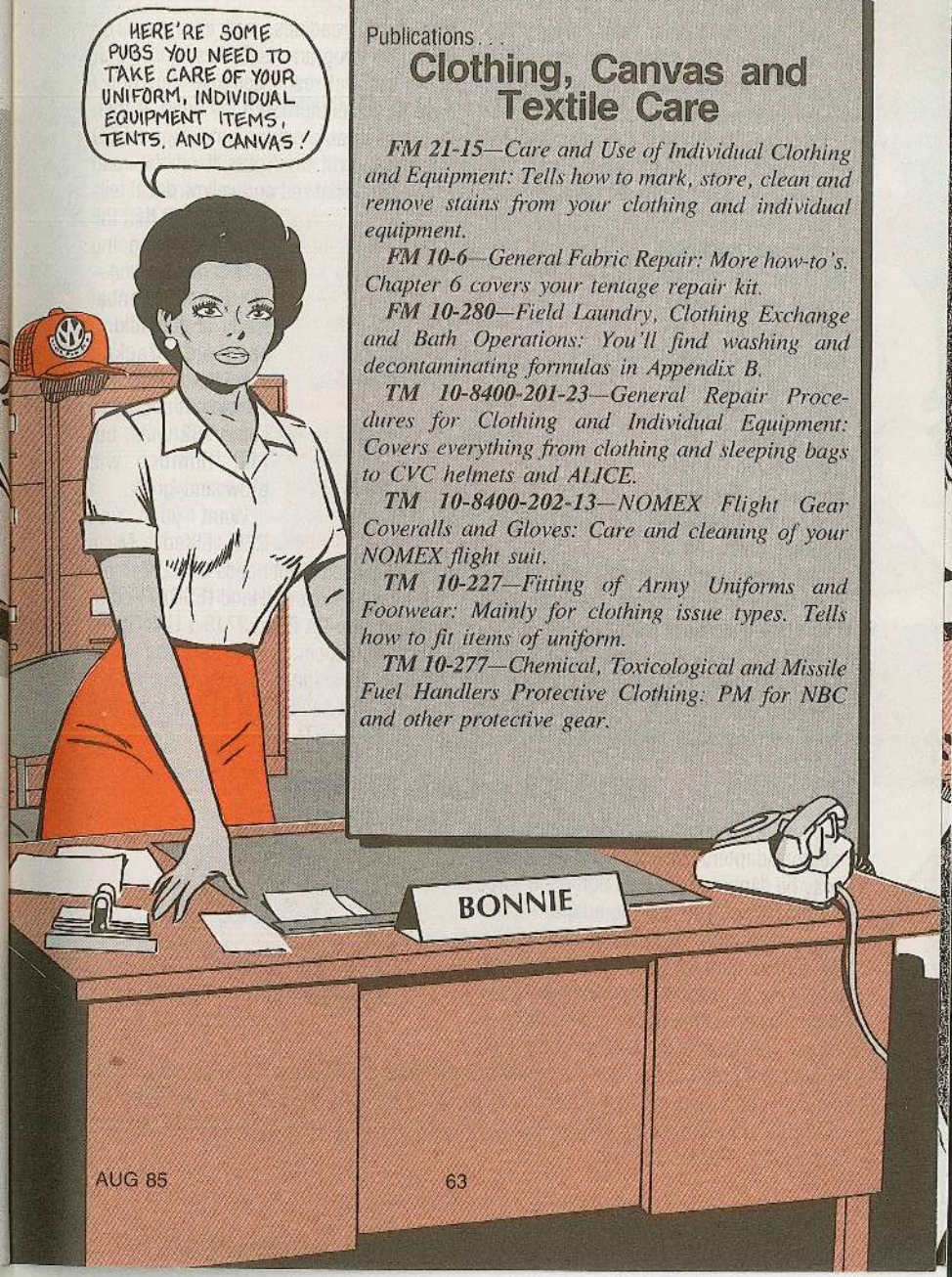
Here's a word to the wise for users of the Nuclear Density and Moisture Soil Tester, NSN 6635-01-030-6896. Take the battery pack out of your unit when it's not being used. When left in an unused tester, the eight nickel-cadmium batteries will leak and corrode your tester.



Battery leakage can cause damage to the radioactive sources and create a radiation contamination problem.

Store the battery pack in the tester storage case. There's a separate compartment for it.

Use only nickel-cadmium batteries—NSN 6140-00-497-0490—in your tester.



Clothing, Canvas and Textile Care

FM 21-15—Care and Use of Individual Clothing and Equipment: Tells how to mark, store, clean and remove stains from your clothing and individual equipment.

FM 10-6—General Fabric Repair: More how-to's. Chapter 6 covers your tentage repair kit.

FM 10-280—Field Laundry, Clothing Exchange and Bath Operations: You'll find washing and decontaminating formulas in Appendix B.

TM 10-8400-201-23—General Repair Procedures for Clothing and Individual Equipment: Covers everything from clothing and sleeping bags to CVC helmets and ALICE.

TM 10-8400-202-13—NOMEX Flight Gear Coveralls and Gloves: Care and cleaning of your NOMEX flight suit.

TM 10-227—Fitting of Army Uniforms and Footwear: Mainly for clothing issue types. Tells how to fit items of uniform.

TM 10-277—Chemical, Toxicological and Missile Fuel Handlers Protective Clothing: PM for NBC and other protective gear.

You're on the Way Up!

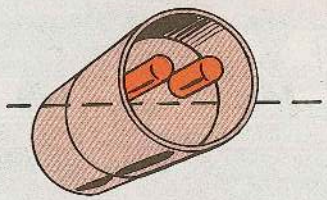
Are you seeing equipment coming into your motor pool sporting a red and yellow sticker? If the answer is an affirmative, you've gotten the RED FIX.

Project RED FIX is the Army's answer to its units' equipment needs. It started last year in combat units overseas, and a few stateside. The project was extended in June 85 to all Army units. Since the Army only has so many items of equipment, like trucks and radios, to distribute, top priority is normally given to the needs of deployed and early deploying combat units. As a result, some later deploying units always have equipment shortages, that keep them from being combat ready.

RED FIX is changing that. The program better balances the equipment needs of the deployed and early deploying combat units with those that deploy later. That way total Army readiness will improve. The RED FIX program identifies units that aren't combat ready because they don't have all the equipment they need. It then locates available equipment, slaps a RED FIX decal on it, and puts it on the road to the unit. That red and yellow decal tells your support that the equipment is going to help make a unit—YOUR unit—combat ready and shouldn't be side-tracked elsewhere. RED FIX started out upgrading some 182 units, but that number will grow and grow.

Want your unit RED FIXed? Make sure your equipment needs are spelled out in the Equipment on Hand (ESRAT) comments on the DA Form 2715-1 Unit Status Report worksheet. And be sure you've got a valid requisition in supply channels for the gear you need. That'll make your unit a target for RED FIX.

NATO Slave Cable Warning



Beware! The two-pin, non-riveted connector adapter, NSN 5935-00-322-8959, may be dangerous to use. Some are wired wrong. When you use the adapter, it can cause battery explosions and other equipment damage. Don't use the adapter until you've tested it. Hold the adapter so both pins are in the upper half of the circle when you look at it. Use a multimeter. Touch one probe to the right pin and the other probe to the case. If you get continuity, you've got a bad adapter. Don't use it. TACOM Safety-of-Use Msg AMSTA-MTB 141300Z Jun 85 has the details. If you don't have a copy, see your TACOM Logistic Assistance Representative.

Connie's POST SCRIPTS

Voltmeter Show Overcharging?

If your voltmeter always shows overcharging, the fault may lie in the voltmeter, not the charging system.

Some early production CUCV's have a voltmeter designed for the M1010 ambulance's 200-amp electrical system. It works fine on the ambulance but gives a high reading on all other models.

Check your vehicle's identification number (VIN). If the last eight digits are lower than EF307276 on cargo models or EF106110 on M1009's, you've got the wrong voltmeter.

Correct it with an overlay decal that extends the green range of the voltmeter. You can get decals by writing to:

Commander
US Army Tank-Automotive Command
ATTN: AMCPM-TV-LC
Warren, MI 48397-5000

Make sure you give them your name and address and tell 'em how many you need.

If the voltmeter still shows overcharging, get the charging system checked out.

OOPS!

The 1/175th FA BN, OMS #7, is in Montevideo, Minnesota—not Montana, as listed in PS 390. They are the National Guard Runner-up in the Light Unit category of the Chief of Staff Maintenance Excellence Awards.

Tobyhanna Warranty Hotline

Have you received communications-electronics or generator equipment from Tobyhanna Army Depot that doesn't work right, or doesn't do what you think it ought to? Let 'em know about it through their warranty hotline. Call AUTOVON 795-7900 or commercial (717) 894-7900. Be sure to give your name, unit, telephone number, item and NSN, document number and a brief description of the problem.

Slave Cable Error

Hold it! The NSN for the NATO slave cable end connectors on Page 13 of PS 390 is wrong. Use NSN 2510-00-567-0128 instead.

☆ U.S. GOVERNMENT PRINTING OFFICE: 1985—559-008 / 9

STOP the Sacrifice