

Issue 480

PS

November
1992

TB 43-PS-480

THE PREVENTIVE MAINTENANCE MONTHLY

SALEM
COURTHOUSE

Witchcraft
trials
today!

I'M JUST IN
TIME TO PROVE THAT
THE ONLY THING THESE THREE
ARE GUILTY OF IS
PM NEGLECT!

When There's Much at Stake
... See Page 27

Approved For
Public Release;
Distribution is
Unlimited

PM in the COLD

No one wears shorts in Alaska... at least not in the winter. People there know as we do, that a partially clothed body can't operate as efficiently in the cold. For the body to survive as the temperature drops, layer after layer of clothing must be added. Equipment without PM is like a partially clothed body. Although it might survive a while in warm weather, it will quickly die in the cold. You must add layers of PM clothing.

HERE'S WHY:

LUBRICANTS become stiff and hard to use.

PLASTIC AND HARD RUBBER PARTS become brittle.

GAUGES AND DIALS stick and give wrong readings.

BRAKES freeze to drums.

FUEL TANKS, FILTERS, AND LINES freeze tight or ice up from condensation.

LINKAGES get stiff causing hard operation or delayed response.

CRANKCASES sludge up from condensation.

BATTERY efficiency is cut. They freeze and crack when discharged.

ENGINES are hard to start with threat of hydrostatic lock.

MACHINED AND UNPAINTED SURFACES rust and corrode quickly.

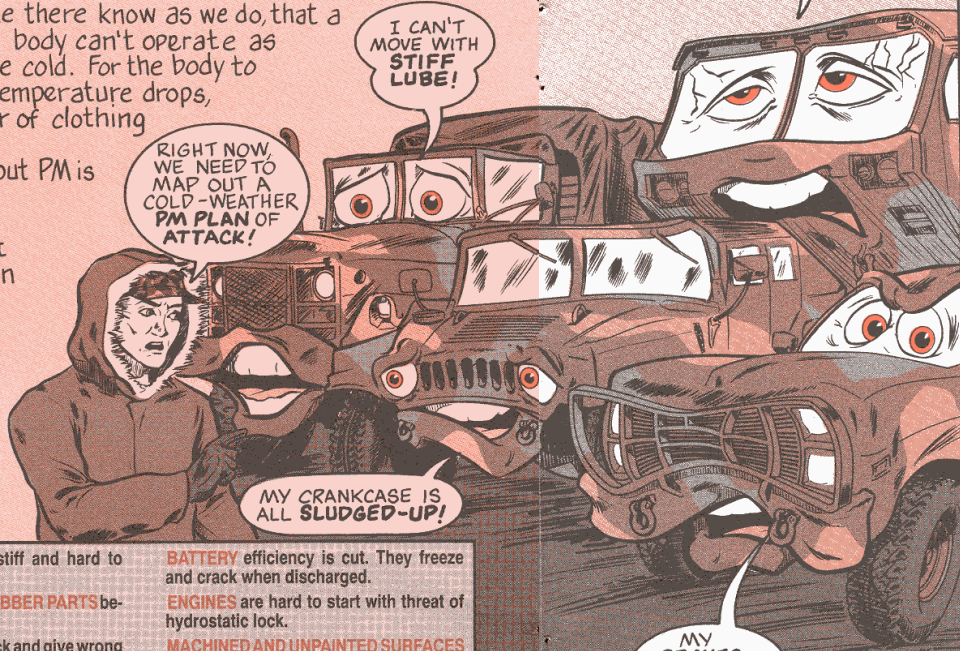
DRAIN COCKS AND PLUGS freeze tight, discouraging daily or periodic draining.

PAINT becomes brittle and cracks.

POWER TRAIN BREATHERS AND VENTS clog from slush and freeze closed.

WINDSHIELDS crack easily when hit by a blast of hot air when being defrosted.

THE LIST IS ENDLESS!



PS THE PREVENTIVE MAINTENANCE MONTHLY

TB 43-PS-480. The Preventive Maintenance Monthly, is an official publication of the Department of the Army, providing information for all soldiers assigned to combat and combat support units and all soldiers with unit maintenance and supply duties. All information published has been reviewed and approved by the agency responsible for the equipment, publication or policy discussed. Application of the information is optional with the user.

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You are invited to send PS your ideas for improving maintenance procedures, questions on maintenance and supply problems, questions or comments on material published in PS. Just write to:

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By Order of the Secretary of the Army:

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

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Stop Missed Inspections

Quarterly and semi-annual inspections and gauging requirements are easy for armorers to overlook.

Their deadlines come and go and, in the rush caused by other jobs and problems, most of the time nobody notices!

But when machine guns, for instance, aren't gauged for headspace, it can cause problems. Firing them can hurt machine guns and soldiers.

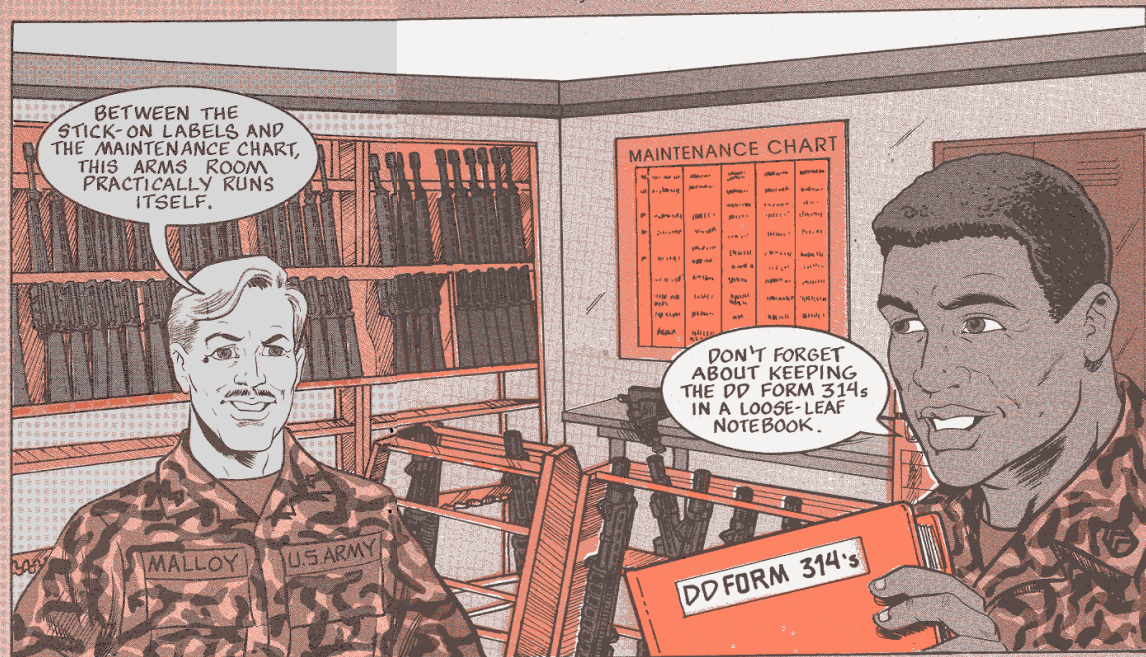
Weapons that haven't been inspected and gauged must be listed NMC. That's bad for the soldiers who use the weapons and your commander who is responsible for equipment readiness.

But it's a snap to keep up with inspections . . . if you have a system.

The easiest way is just to keep your DD Form 314s in a loose-leaf notebook or box and write in the REMARKS column when the next inspection's due.

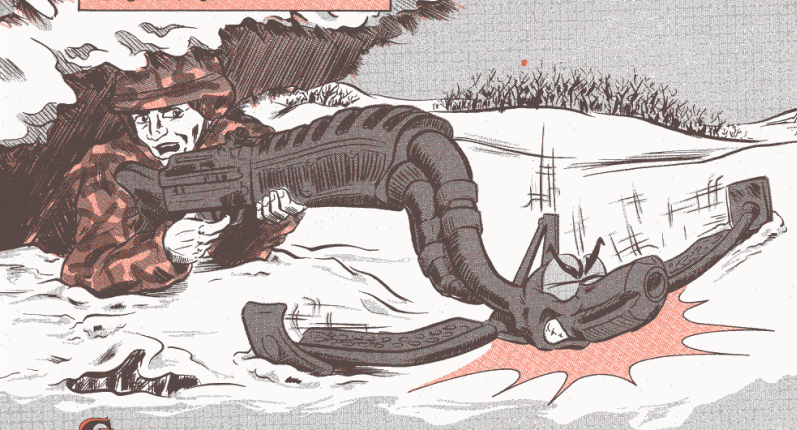
If you store your rifles and machine guns in the same places in racks, you can use the label method. Get stick-on labels or a sheet of acetate from your SSSC. Put a label on the rack under each weapon or tape a strip of acetate along the base of the rack. Mark on the label or acetate when the next inspection is due.

Or make your own maintenance chart. Get a large piece of cardboard. Mark off columns on the cardboard for: ID No; date inspected; next due date; status; and remarks. Cover the cardboard with acetate. Use a grease pencil to list all info on your equipment. Whatever system you use, make sure whoever replaces you understands how you've kept track of gauging and inspections. You'll be doing the new armorer and your unit a favor.



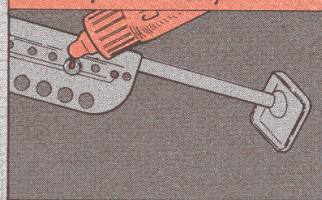
A Leg Up on Bipod PM

IF YOU **DON'T** TAKE STEPS TO **CARE** FOR YOUR M60'S BIPOD, SOON IT WON'T HAVE A LEG TO STAND ON.

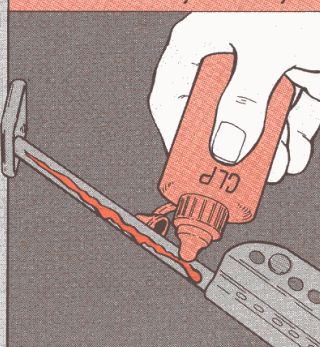


Give the bipod and legs a good workout during cleaning. Exercise the leg locks in and out... the leg extensions up and down... the bipod back and forth. If all the bipod's parts do not move smoothly, do this:

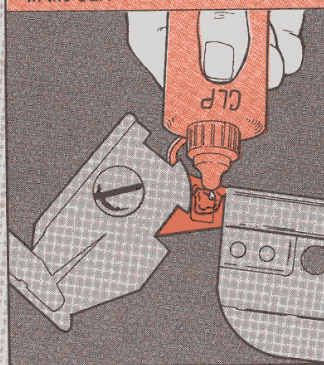
Put a few drops of CLP on the leg locks and work them in and out until they move smoothly.



Draw a line of CLP down the seam in each leg extension. Work the extensions until they move easily.



Put a few drops of CLP where the bipod slides back and forth. Work in the CLP.



Give the bipod legs a shake to feel for looseness. If you feel any play in the legs, tighten the bipod screws with your combination tool. If screws keep loosening during firing, have your armorer stake them.

Test the leg extensions in each latch position. If a latch won't hold, don't try to fix it by bending it. You'll only weaken the latch. DS will need to fix it.

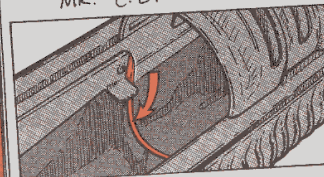
Protect the bipod by keeping the legs locked back during transport. Otherwise, bumping bends the legs. Lay your M60 on its side for travel.

Never lean the gun forward on its flash suppressor, either. One good jolt ruins the flash suppressor and bipod.

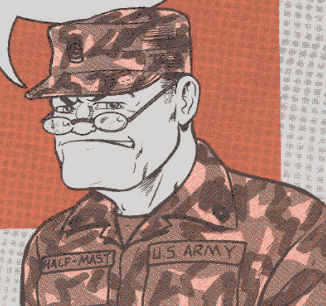
Forewarned Is Forearmed

DEAR HALF-MAST,
THE RIBS ON THE M60'S FOREARM ASSEMBLY BREAK OFTEN. IS THERE ANY WAY TO FIX THEM?

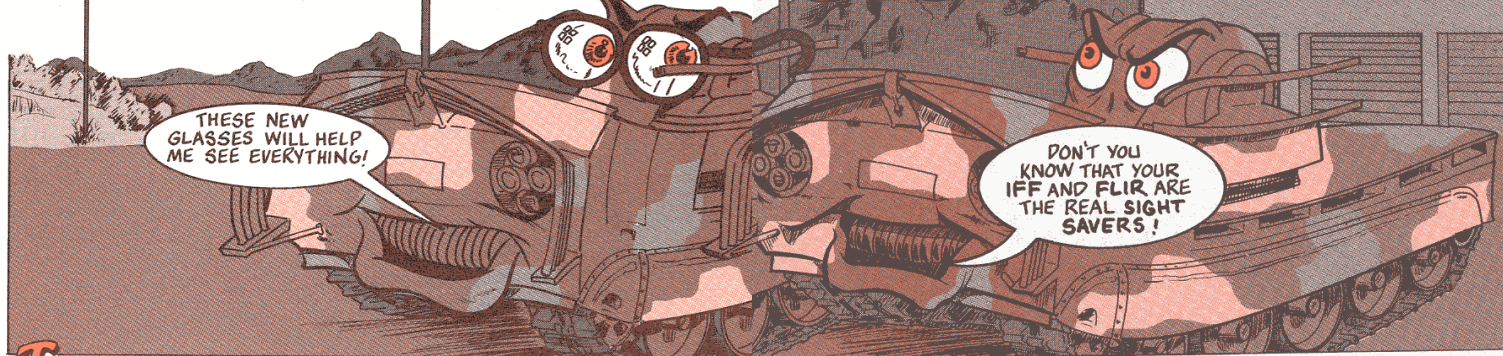
MR. C.E.



YES, THE RIBS ARE REPAIRABLE BY DS. THE PROCEDURE'S ON PAGE 3-38 IN TM 9-1005-224-24. BUT YOUR SUPPORT SHOULD USE NSN 9535-00-250-6501 TO GET ALUMINUM TO FABRICATE THE RIBS. IT'S STRONGER THAN WHAT'S LISTED IN THE TM.



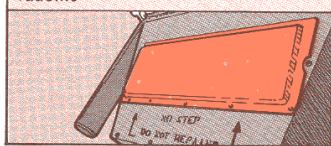
Seeing Clearly



The Forward-Looking Infrared (FLIR) and Identification Friend or Foe (IFF) systems are your Chaparral's eyes. If the FLIR and the IFF are not seeing clearly, you either won't be able to spot aircraft or tell if it's friend or foe. Keep your eye on these sight savers.

IFF

Keep feet and equipment off the IFF radome.



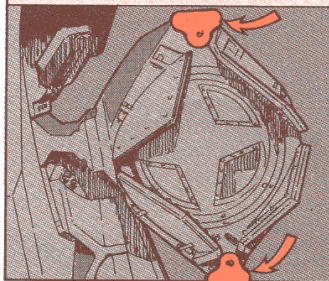
It's just fiberglass covered with a special paint. If it gets chipped or scratched, the signal will be distorted.

Be especially careful tossing equipment up to the gunner's compartment. That's when the radome's usually damaged.

eyeball the radome before you go to the field. Report scratches and chips to your repairman.

FLIR

During BEFORE PMCS, gently move the FLIR receiver actuator handles side-to-side to feel for looseness.



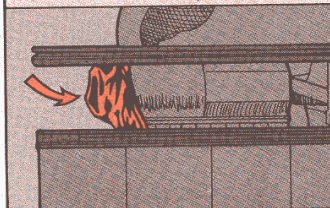
The handle screws vibrate loose and either the handle falls off or the screws snap next time you pull out the handle. Then the doors can't be opened. The FLIR is useless.

Also make sure both handles on the receivers point to the center of the doors. If they don't, the handles damage the doors or the handle screws are sheared when the doors spring open.

Your repairman can cure loose screws by coating them first with primer, NSN 8030-00-900-2373, then with sealing compound, NSN 8030-00-081-2333, before tightening them.

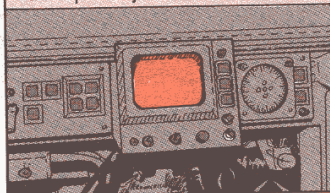
During travel, dust blows back on the FLIR, penetrating through small holes in the FLIR cover and coating the lenses.

Prevent trouble by tying a plastic bag, NSN 8105-01-183-9768, over the FLIR.



Dirty lenses leave bad readings. When you're ready to operate, just pull off the bag.

Give the FLIR's video display control panel (VDPC) at least one minute to warm up after you turn it on.



If you immediately start operating, you risk blowing the VDPC screen (worth thousands of dollars) or VDPC circuit cards.

Moisture in the FLIR causes double images on the screen. That's why after every 28 hours of operation your repairman needs to change the filters for the FLIR and the air purifier in the crew equipment compartment.

Clamp Down and Limit Problems

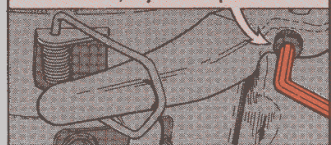


Clamps

Make sure the coupler clamp is there. If it's gone, your TOW 2 is NMC until the clamp's replaced by support.

Put the traversing unit (TU) on the tripod or adapter and lock it in place with the coupler clamp. Try to move the TU

If TU moves, adjust clamp screw



from side to side. If the TU moves, adjust the coupler clamp's screw to increase the clamp's tension. If that doesn't stop TU movement, tell your repairman.

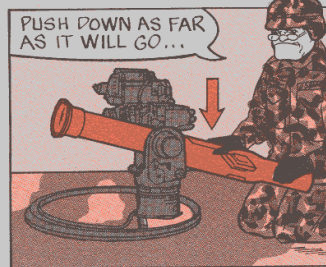
Limiters

Check that both elevation-depression limiters are on the TU. If either limiter is missing, your TOW 2's NMC until support replaces the limiter.

Any time your unit repairman sends the TU in for repair or exchange, he should remove the limiters. They are not part of the TU and may not be returned.

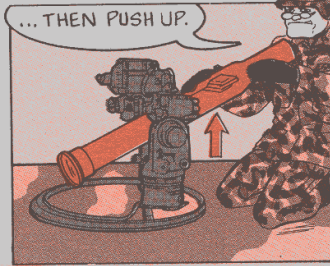
Make sure the limiters will prevent the launch tube from suddenly swinging up or down during firing like this:

- ✓ Put the launch tube on the TU.
- ✓ Elevate the launch tube as far as it will go. Gently push down on the tube's



rear end to make sure the elevation stop holds.

- ✓ Test the depression stop by tipping the launch tube down as far as it will go. Gently push up on the tube's rear end. If either stop gives, report it.



Dragon Missile ...

To Charge or Not to Charge



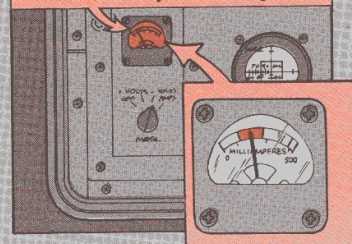
Knowing when to charge the batteries in the Dragon's AN/TSQ-T1 monitoring set can be a touchy business.

That's because charging them too late — or too soon — will reduce the life and charge capacity of the batteries.

It's best to wait until the charge meter reads in the lower yellow section. Then follow the charging procedures outlined in Para 3-6 of TM 9-6920-484-12.

NOV 92

Needle in lower yellow? Charge it!



9

Batteries Are a Burning Problem

IT DOESN'T TAKE MUCH TO START A FIRE ON YOUR M-1 SERIES TANK. COMBINE A STRAY SPARK FROM THE BATTERIES WITH A BIT OF SPILLED FUEL OR OIL AND PRETTY SOON YOU'VE GOT A RAGING INFERNO.

PREVENT THAT FATAL SPARK. BABY THOSE BATTERIES WITH THESE PM TIPS...

◆ Report any battery cables that show wear, chafing, melting or other damage. Cables with damaged insulation should be replaced right away.

◆ Visually inspect the battery box for indications of damage and keep it clean of trash and debris.

◆ Check the positive and negative boots for signs of melting caused by arcing. Keep all cable connections tight.

◆ Keep cables tight against the battery box side wall.

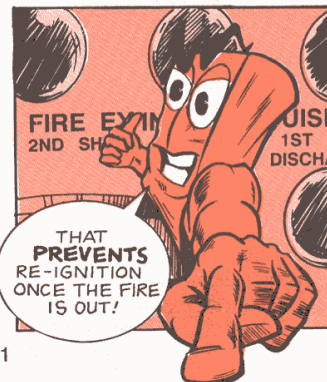
◆ Pay special attention to the rubber bus block on vehicles that use bus bars instead of battery cables. If the cushion is missing, torn or damaged, have your mechanic replace the entire bus block. Trying to repair the cushion is an open invitation to a fire.

In Case of Fire

◆ Disconnect the negative emergency disconnect link in the battery box.



If your tank has a prime power interrupter (PPI) switch, the master power switch isolates the battery. Make sure you shut off the fire extinguisher's 2ND SHOT switch if it was used.



Remember Suspension Lube

Some of the M1-series tank's grease fittings and oil reservoir windows are easy to overlook — unless you make the effort to check all of them.

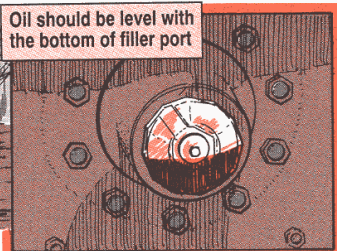
Doing your daily or weekly PMCS means getting your noggin under the tank's skirts for the close eyeball stare.

Take a look at all the grease fittings on the roadwheel housings. Make sure to wipe off any grease fittings and the grease gun nozzle before you plug in the grease gun. Otherwise, you pump in dirt or sand with the grease. That combo chews up bearing surfaces.



level. If the oil is 1/2 inch low or more, report it. If the oil is milky-colored, report it. There's a leak that needs to be repaired.

Oil should be level with the bottom of filler port



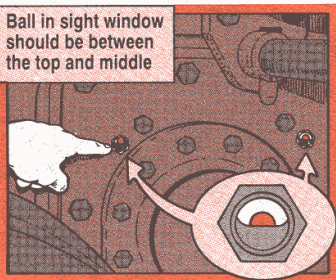
Your tank's roadwheels need their oil, too. Clean the roadwheel hubcaps with a piece of cloth and take a look at the oil

Any lube needed that you can't add or apply, let your mechanic know. Remember that, too.



that window should be between the top and middle. That tells how much oil is in the shock absorber's housing. If the oil level is low, add some — the LO tells how.

Ball in sight window should be between the top and middle



Rocks and gravel tend to break or damage grease fittings. Replace any fittings that you find missing.

Next, move over to the shock absorber sight glass windows (the LO and TM call them indicators).

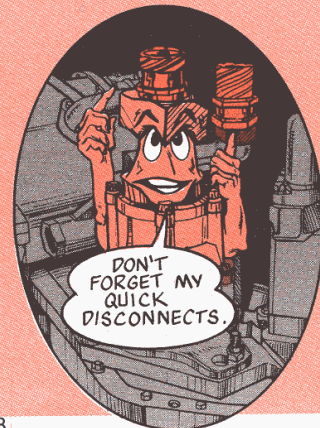
Clean the windows with a piece of cloth for a clear view. The ball inside

Seeing Is Believing

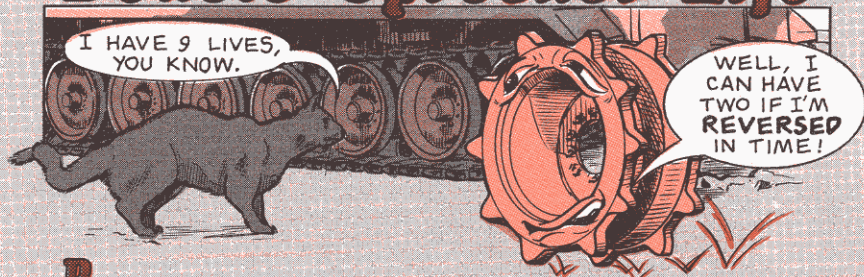
You've got to have 20/20 vision when it comes to the quick disconnects (QDs) on the main hydraulic pump of your M1-series tank.

That's because it's so easy to overlook removing the QDs before sending the pump to your support unit. The pump may come back without QDs and that means you'll have to buy new ones.

Take off the QDs and keep 'em until the pump is returned. The procedure is spelled out on Page 20-6 of both TM 9-2350-255-20-1-5 and TM 9-2350-264-20-1-5.



Double Sprocket Life



Paying attention to sprocket wear marks or using a sprocket wear gauge is the key to doubling sprocket life on 109s and 992s.

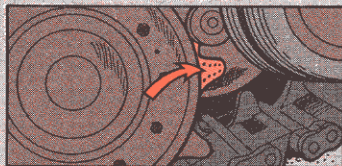
Built-in sprocket wear marks make it easy to tell when it's time to reverse the sprocket so the other side of the teeth can be used. When both sides are worn to the marks, you replace the sprocket.

For sprockets that don't have wear marks, use the gauge. The wear gauge has four measurements called out on its surface. Use only the last one—1/2 inch. When wear reaches 1/2 inch, reverse the sprocket. Again, when both sides are worn, replace the sprocket.

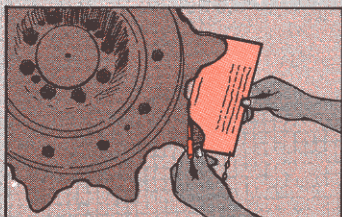
TM 9-2350-311-10 and TM 9-2350-267-10 require monthly sprocket wear checks. TM 9-2350-311-20-1 and TM 9-2350-267-20 require annual wear checks.

If you don't make the checks and reverse the sprockets when indicated by wear mark or wear gauge, the sprockets wear too far into one side of the teeth. That causes the sprocket to "hook" track end connectors during operation. The connectors are damaged, track life is reduced and sprockets are broken.

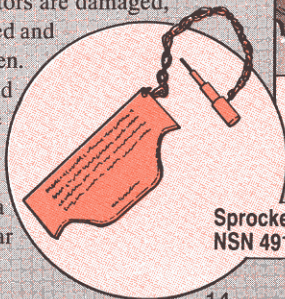
Do your job and keep an eye on the sprockets. If they are reversed in time, you'll get a full lifetime of wear from them.



When a sprocket wears down to marks, reverse it



No wear marks? Use gauge to measure wear



Sprocket wear gauge
NSN 4910-00-908-7344

Put the Squeeze on Cooling Tube

WHEW!
PULLING THE
POWERPLANT ON
THE M109-SERIES SP
HOWITZER OR M992
AMMO CARRIER IS
HARD WORK!

BUT JUST THINK HOW UPSET
YOU'LL BE IF YOU HAVE TO
TURN AROUND AND DO IT AGAIN.

That's exactly what'll happen if you use the wrong clamp to attach the main coolant tube to the water pump. Any clamp other than T-bolt clamp, NSN 4730-01-090-1216, just can't take the pressure. The clamp breaks, the tube blows off and the engine coolant spills



Use T-bolt clamps to hold cooling tube

out. Here's how to install the T-bolt clamp the next time the pack is pulled:

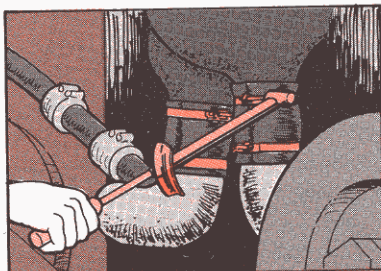
1. Pull the powerpack and drain the cooling system. Remove the cooling tube and clamp.

2. Clean the inside end of the tube with a dry cloth, then dab with adhesive, NSN 8040-00-273-8717. Slide a new T-clamp into place.

3. Reattach the tube, torque the clamp to 40-60 lb-in and prepare to groundhop the powerpack. Make sure you've got coolant in the system before you start the engine.

4. Once the engine has reached normal operating temperatures, allow it to run for another five minutes. Check for leaks. Shut down the engine and re-torque the clamp to 40-60 lb-in if no leaks are detected.

If you haven't had any problem with leaks, change the clamps at the next scheduled service.



No leaks? Retorque clamp to 40-60 lb-in

Game, Set, Match



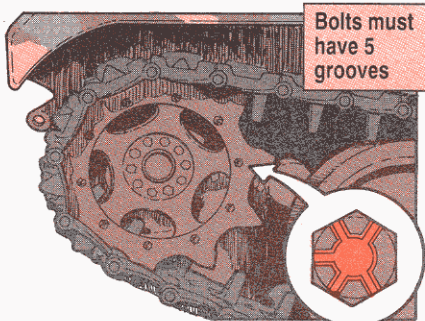
You've got to match the bolts to the sprocket wheel to win this track game. If you put 1 1/4-in bolts in the new-style sprocket wheel, there won't be enough threads to hold the sprocket wheel tight. The bolts will break off. If you use the 1 3/4-in bolt on the old-style sprocket wheel, you can't tighten the sprocket. A loose sprocket will throw a track.

The older-style sprocket wheel, with part number 8763352 stamped on it, uses a 1 1/4-in self-locking bolt, NSN 5305-00-150-3146. No other bolt will do.

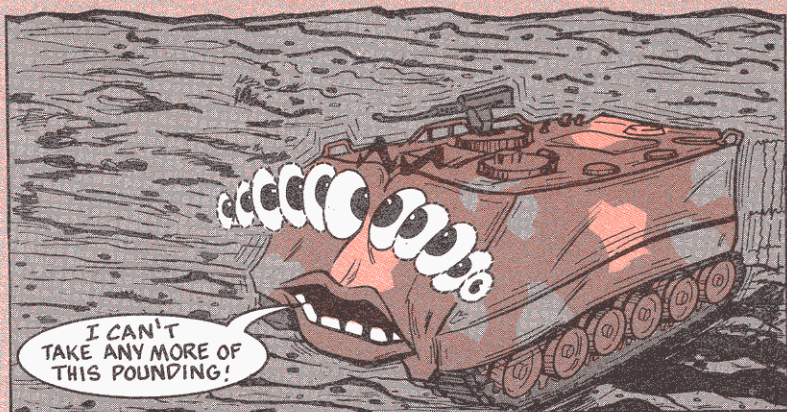
The new-style sprocket wheel, identified by the part number 10942567 stamped on it, uses a 1 3/4-in self-locking bolt, NSN 5306-01-131-9825.

Both of these are Grade 8 bolts. They have five "grooves" in the head surface. Do not use any other type of bolt. Replace all sprocket mounting bolts that do not have these grooves.

Torque the bolts to 110-115 lb-ft.



Keep Roadwheels Lubed



Carrier drivers, your after-operation PMCS says to make sure there's enough grease or oil in roadwheel hubs.

No problem, if your carrier still has oil-lubed hubs. You just look for oil half-way up in the sight glass.

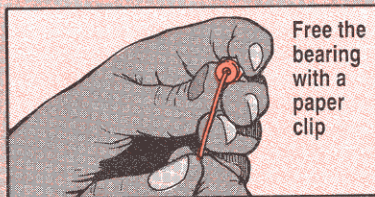
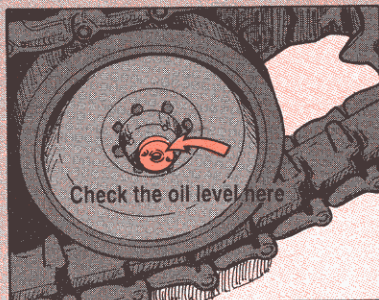
Problem is, most carriers use grease in the hubs.

Looking at a sight glass won't tell you if there's enough grease in the hub. And, your LO only requires that hubs be filled every 150 hours, 1500 miles or semi-annually.

So, next time you get ready to take your vehicle out for a pounding over rough country or in desert heat and sand, pump grease in by hand, about six to eight shots of lube. If pumping gets hard, then the relief fitting may be plugged. Stop pumping. Grease has no place to go. You'll blow a hub seal.

Get your mechanic to take out the relief fitting.

He can work the fitting's valve bearing with a paperclip until the bearing moves freely — or replace the valve.

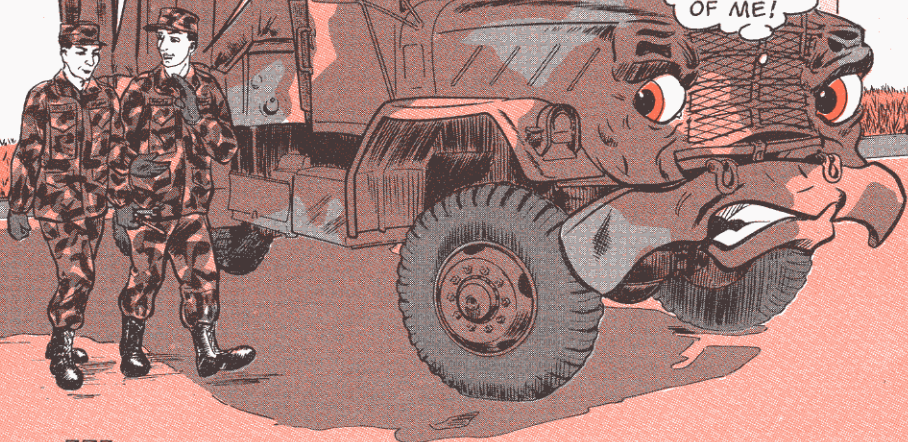


Send Them Everything

IS THIS THE TRUCK GOING TO SUPPORT FOR REPAIR?

YES, AND THEY WON'T MIND IF WE TAKE A PART OFF OF IT, SO MY TRUCK WILL BE MISSION CAPABLE.

THAT'S WHAT HE THINKS! DS WANTS ALL OF ME!



When you send an end item or major assembly to support for repair, be sure you send the whole item.

Sure, you probably could use some component to keep another end item mission capable, but support can't perform its technical inspection to determine needed repairs unless they have the complete item. So send them everything, cables and all.

After the DS folks determine what repairs are necessary, you can work with them to remove the part you need. Of course, you'll need your commander's OK before you remove the part. This controlled exchange helps keep your unit's Operational Readiness rate high. Check out Paragraph 4-7 of AR 750-1, Army Materiel Maintenance Policy and Retail Maintenance Operations, for guidance on when controlled exchange is authorized.

Make sure the PLL clerk gets the removed part on order. That way you'll have all the parts you need to put your DS-repaired item back in service when it's returned.

Equipment Status Chart

Dear Editor,

Units usually have some way to keep up with status on their equipment. Most use a large, framed equipment status board. These boards look good, but they're not portable.

I solved this problem with a portable chart, which I had reproduced at a commercial company.

The chart is 2 feet wide by 3 feet long and can be thumbtacked to a corkboard or to the wall. The chart also can be rolled up and taken to the field.

The chart is laminated so I make entries with an audio-visual type pen. The ink wipes off with a damp cloth.

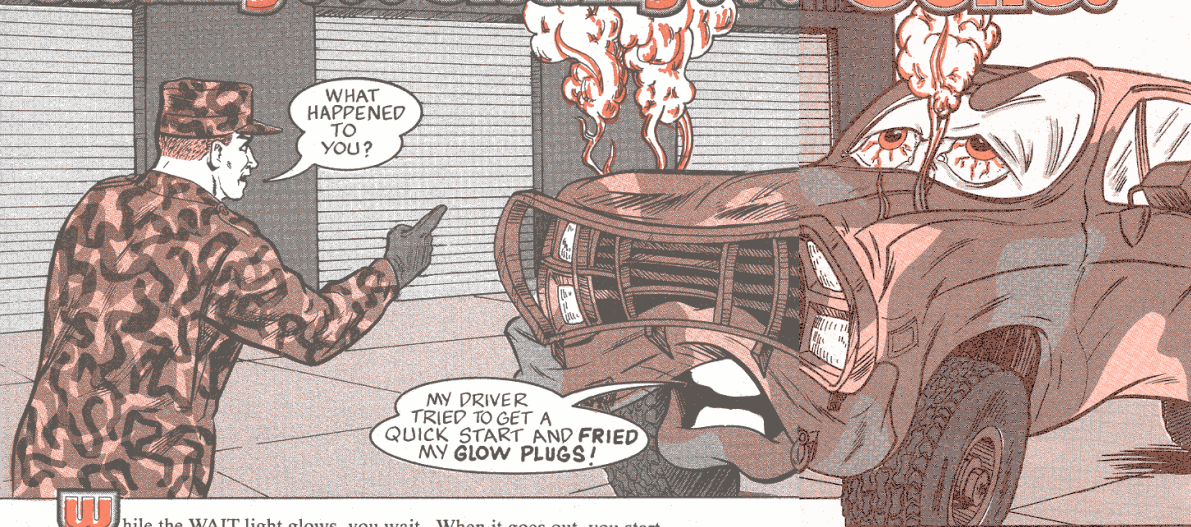
The chart has room for 60 line entries. The two blank columns can be used for trailer or radio numbers.

LTC Daniel K. Cedusky
ILARNG

[illegible]

(Editor's note: Instead of local purchasing these charts, units may be able to get their Training Aids Support Center (TASC) to make them. Order a set of eight different color audio-visual pens with NSN 7520-00-138-7981.)

Glowing... Glowing... Gone!


W

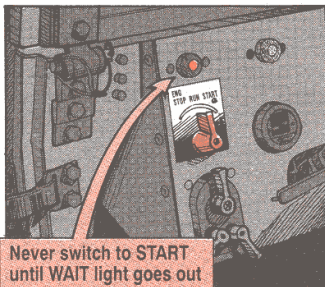
hile the WAIT light glows, you wait. When it goes out, you start. Simple, but important. Forget either part and glow plugs turn into crispy critters. When you start your vehicle, turn the ignition switch to RUN and wait for the glow plugs to heat the pre-combustion chambers.

The WAIT light comes on, and stays on until the chambers are ready. When they are, the WAIT light goes out.

Then, you start the engine, and let it run. No gunning, though. The engine, unlike the combustion chambers, is still cold.

If you start your vehicle before the WAIT light goes out, you recycle the glow plug controller. That increases the voltage to the plugs, burning up plugs and blowing the controller box.

If you don't start your vehicle when the light goes out—and keep the switch on RUN—the plugs continue to cycle, swell up and fail.



Glow Plugs...

Swollen Is Not Swell

Glow plug parts bouncing around inside your CUCV or HMMWV engine cylinders is trouble...

which starts with T and rhymes with:

B for bent valves;

C for cracked cylinder walls;

E for engines ruined; and

P for pre-detonation caused by hot spots.

Those parts get there because mechanics try to remove swollen glow plugs. The plugs break and the ends fall into the cylinders.

When a glow plug is stubborn and won't come out, stop tugging. Get that truck to support. It's a 30-minute job for DS to remove a swollen glow plug.

It can take two mechanics eight hours to pull and replace a cylinder head.

Swollen glow plugs can be a headache for your unit mechanic. They won't come out the way they went in. They break off.

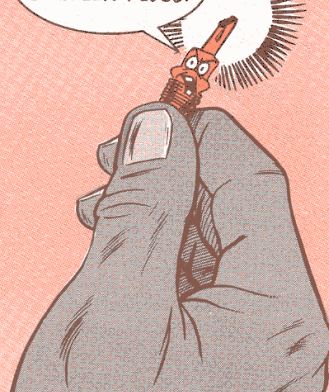
That often means the cylinder head has to come off to get at the plug. Two people can work eight hours doing that.

Of course, if you're starting a warm engine, the light may just flicker, or not light at all. Don't worry unless the light comes on and stays on.

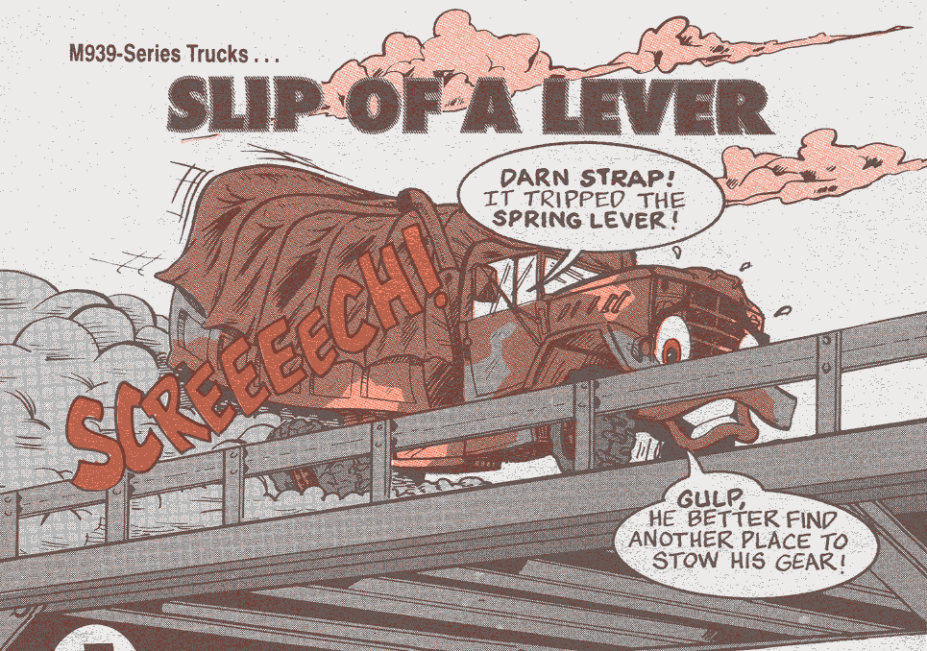
A final warning. If you hear a clicking sound and the WAIT light flickers on and off during start-up, stop!

The controller is not kicking off completely. Driving your vehicle that way fries the glow plugs.

NEXT TIME, GET DS TO REMOVE SWOLLEN PLUGS!

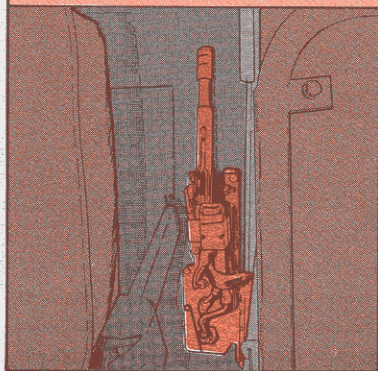


SLIP OF A LEVER

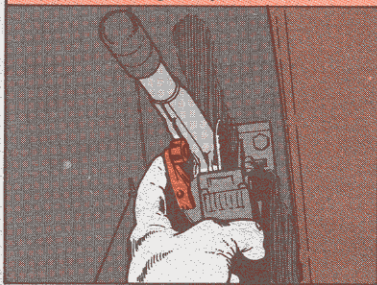


The spring brake lever is easy to trip. Just a flip of the finger will set the spring brakes. Anything on or near the lever can trip it when you hit a bump in the road.

Keep your pack, helmet and other gear away from the spring brake.



A flip of the finger trips the lever



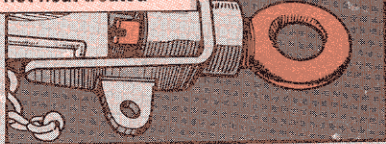
Locked brakes are bad news if you're wheeling down the interstate, driving in a convoy or crossing a narrow bridge loaded with traffic. Somebody could get killed when the truck screeches to a halt.

So-o-o-o, play it safe — keep everything away from the spring brake lever.

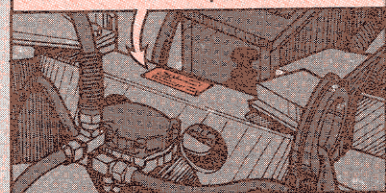
Some Eyes Don't Have It

Lunettes on some M1022 dolly sets are breaking. They were not heat-treated during production.

Some lunettes were not heat treated



To keep from losing your lunette and your load, check your dolly's serial number on the data plate.



Look for these serial numbers:

163, 165, 167-168, 173, 175-177, 186-187, 194, 196, 201, 205, 209-210, 217-219, 221-222, 226-229, 231, 233-234, 246-247, 251, 264, 266, 275-276, 278-279, 281, 300, 307, 309-312, 315-319, 329-332, 339, 342, 344, 347-359, 366-370, 372-373, 378-379, 386-387, 394, 398, 401-402, 406-409, 411, 420-421, 423, 425-429, 431-434, 442, 445-447, 449-450, 453, 463-466, 468-473, 477-478, 484-487, 494, 498-513, 515, 517, 521, 525-526, 528, 531, 534, 536-538, 540, 542-550, 554, 559, 562, 564-568, 579, 581-600, 605-608, 615, 617, 619-639, 641, 645, 647, 650-651, 655-679, 688, 695-696, 699-700, 735, 738, 743, 772, 774, 776-777, 779, 781-784, 783-784, 786-788, 791-792, 794 and 796.



If you find any one of those numbers, replace the lunette with NSN 5306-01-268-4726. Don't order it through supply, though. It's free issue in this case.

To get your free lunette, call or fax ...

**US Army Tank-Automotive Command,
ATTN: AMSTA-FHSB.**

**Use DSN 786-8331 or Commercial
number (313) 574-8331/6577 to talk.
The fax number is DSN 786-7510 or
Commercial (313) 574-7510.**

Give your dolly's serial number and provide a Department of Defense Activity Address Code (DODAAC) for shipping the new lunettes.

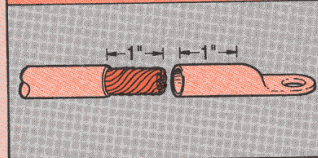
Solder, Soldier!



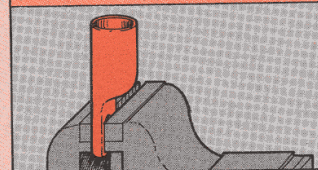
WHEN A BATTERY CABLE NEEDS A NEW TERMINAL LUG AND A PROPER CRIMPER IS NOT AVAILABLE YOU CAN MAKE DO WITH SOLDER. YOU NEED...

- ➔ The propane torch kit from the No. 1 Common shop set
- ➔ A 1-lb spool of 50/50 rosin core solder, NSN 3439-00-640-2404
- ➔ A terminal lug (see the -20P manual for your equipment—truck, generator, etc.)
- ➔ Heat-shrinkable tubing, NSN 5970-00-815-1300
- ➔ Face protection and gloves

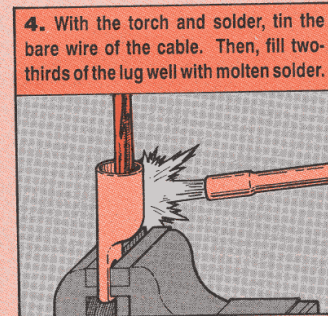
1. Strip about an inch of insulation from the cable. That should match the depth of the lug well.



2. Clamp your new lug in a vise, so it points straight up.



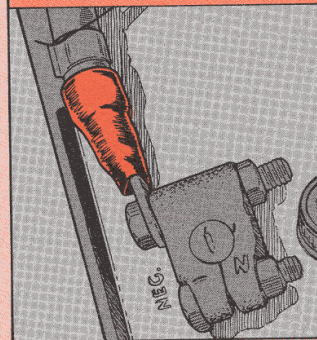
3. Slide a 2-in piece of heat-shrinkable tubing over the cable and out of the way.



4. With the torch and solder, tin the bare wire of the cable. Then, fill two-thirds of the lug well with molten solder.

5. Keep both the bare end of the cable and the lug hot. Push the bare end of the cable into the solder. Take away the heat. Hold the cable end in the lug until the solder hardens.

6. Let the lug cool until you can touch it. Slide the heat-shrinkable tubing into place. Cover one-half inch of the lug. Shrink the tubing with the torch. That keeps out corrosion.



IF YOU NEED ANY REFRESHER INFORMATION ON SOLDERING, GET A COPY OF TB SIG 222.





(Pubs info was not available for this issue. See the December issue for the latest pubs info.)

AUDIO-VISUAL STUFF

Available at Battalion or Post Learning Center

Film, TV Tapes
707934 DEPMEDS—Utilities—power
709236 C-HET coupling and uncoupling
703238 C-HET loading and unloading the M1A1 tank
709239 C-HET driving
709245 The high mobility material handler (HMMH) famil-

larization and initial inspection procedures

709353 Unit maintenance—Part 1
709354 Unit maintenance—Part 2
709361 Technical assistance
709586 SEE familiarization and initial inspection procedures
709590 HEMAT
709739 Swimming the M9 ACE

Maintenance Advisory and Safety-of-Use Messages

AMCCOM SOU MSG 92-17—Advisory, Asbestos gloves, AMSMC-MA 291334Z Jul 92.

AMCCOM SOU MSG 92-21—Technical, Motor vehicle towbar, AMSMC-MA 181325Z Aug 92.

AMCCOM Maintenance Advisory MSG 92-26—M119A1 Howitzer brakes, AMSMC-MA 301256Z Jul 92.

AMCCOM Maintenance Advisory MSG 92-28—M1A1 Abrams tank, AMSMC-MA 171401Z Aug 92.

ATCOM SOU MSG 92-14—Advisory, Maintenance, 2000 Class utility landing craft, AMSTR-M 131830Z Aug 92.

ATCOM Maintenance Advisory MSG 92-18—OV-1 Mohawk aircraft, AMSTR-ME 041345Z Aug 92.

ATCOM Safety Action MSG—Operational, AH-1 aircraft, AMSAT-C-XS 132000Z Aug 92.

ATCOM Safety Action MSG—Maintenance Mandatory, UH-60 se-

ries aircraft, AMSAT-C-XS 182015Z Aug 92.

ATCOM Safety Action MSG—Maintenance Mandatory, UH-1 series aircraft, AMSAT-C-XS 272200Z Aug 92.

CECOM SOU MSG 92-08-01—Follow-up, AN/AVS-6(V)1 and (V)2 monocular housing assemblies, AMSEL-SF-SEC 061900Z Aug 92.

CECOM SOU MSG 92-08-03—Advisory, Mobile Subscriber Equipment (MSE), M-116A2 generator trailers, AMSEL-SF-SEP 141800Z Aug 92.

CRDEC APG MD Maintenance Advisory 92-27—M256/M256A1 chemical agent detector kit, SMCCR-MA 111436Z Aug 92.

TACOM SOU MSG 92-16—Limited One Time Inspection, M870 basic 40-ton semitrailer and HP15T-MIL 15-ton flatbed trailer tires, AMSTA-M 071830Z Aug 92.

TACOM SOU MSG 92-17—Limited One Time Inspection, Hyster 4K

and 6K forklifts, AMSTA-M 140830Z Aug 92.

TACOM SOU MSG 92-20—Advisory, Operational, M939/A1/A2 series 5-ton vehicles, AMSTA-M 251219Z Aug 92.

TACOM SOU MSG 92-19—Advisory, Technical/Maintenance, Trailer brake shoes, AMSTA-M 141000Z Aug 92.

TACOM SOU MSG 92-18—Limited One Time Inspection, M939A2 series 5-ton vehicles, AMSTA-M 142020Z Aug 92.

TACOM Maintenance Information MSG—Tires manufactured by United Tire (Canada), AMSTA-M 131330Z Aug 92.

TACOM Maintenance Information MSG—M35/M44 2-1/2 ton vehicles, AMSTA-MTB 181330Z Aug 92.

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

Aviation Messages

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

OH-58-92-05, SOF, Emergency, Immediate grounding of all OH-58D aircraft, 222000Z Jul 92.

UH-1-92-ASAM-10, Maint Mand, UH-1H/V, install ARC-201 dimmer network assembly, 271900Z Jul 92.

UH-1-92-ASAM-11, Maint Mand, UH-1, inspection of 90 degree gearbox attachment fitting, 231850Z Jul 92.

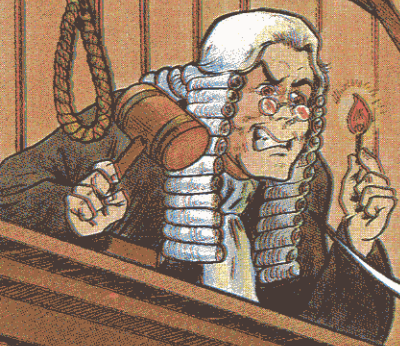
Gen-92-ASAM-09, Gen, Safety Office move, 141930Z Jul 92.

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

OV-1-92-ASAM-03, Maint Mand, OV-1D and RV-1D, inspect elevator trim tab actuating rod attachment horn fitting for cracking, 232200Z Jul 92.

AH-1-92-ASAM-12, Maint Mand, Improved Particle Separator scavenger tubes, 011800Z Jul 92.

When There's Much at Stake

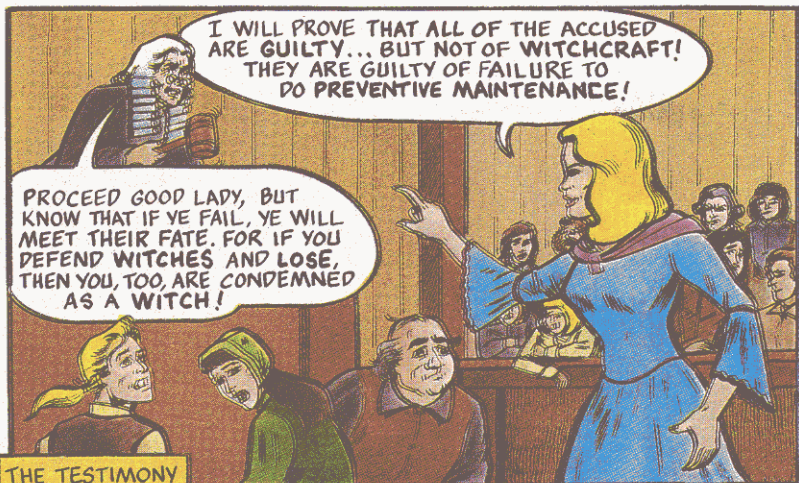


ANY
LAST
WORDS?

I HAVE
A FEW, YOUR
HONOR!

IT WAS JUST 300 YEARS AGO ON A DARK AND STORMY NIGHT IN THE HEINOUS HISTORY OF MANKIND. INNOCENT FOLK MET FIERI FATES AND DANGLING DEATHS BECAUSE NO ONE COULD EXPLAIN WHAT SEEMED INEXPLICABLE. A CHILLING CRY WENT FORTH THAT CROSSED THE BOUNDARIES OF TIME AND SPACE. "WHO WILL END THIS BLOODSHED?" THE CHILLING CRY ASKED. AND THEN JUST WHEN THE DEATH KNELL WAS ABOUT TO TOLL FOR THREE MORE...





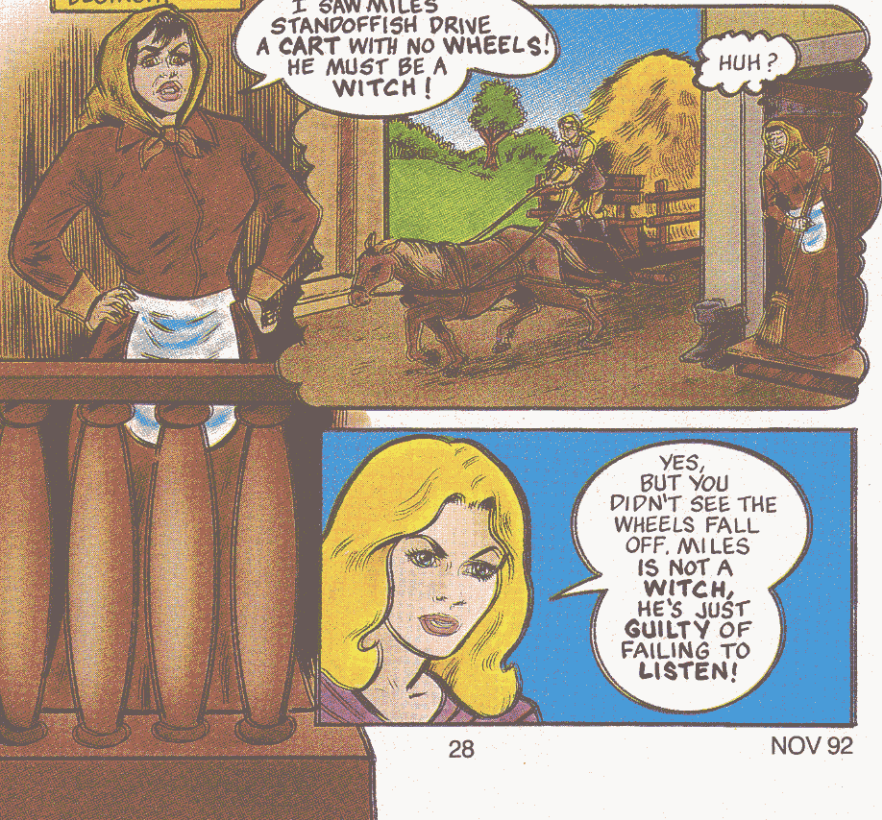
I WILL PROVE THAT ALL OF THE ACCUSED ARE GUILTY... BUT NOT OF WITCHCRAFT! THEY ARE GUILTY OF FAILURE TO DO PREVENTIVE MAINTENANCE!

PROCEED GOOD LADY, BUT KNOW THAT IF YE FAIL, YE WILL MEET THEIR FATE. FOR IF YOU DEFEND WITCHES AND LOSE, THEN YOU, TOO, ARE CONDEMNED AS A WITCH!

THE TESTIMONY BEGINS...

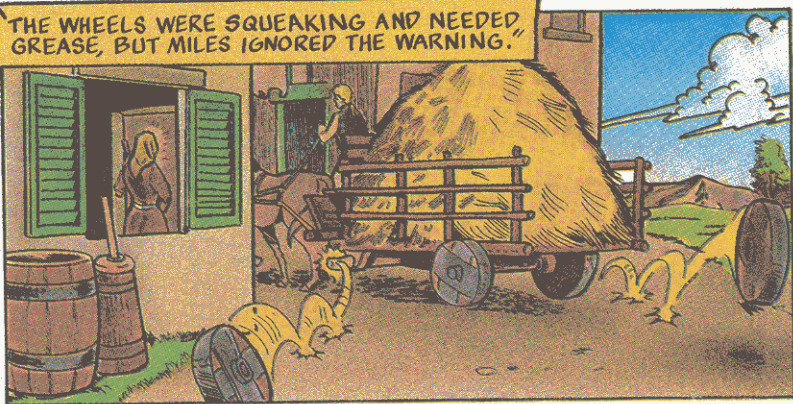
I SAW MILES STANDOFFISH DRIVE A CART WITH NO WHEELS! HE MUST BE A WITCH!

HUH?



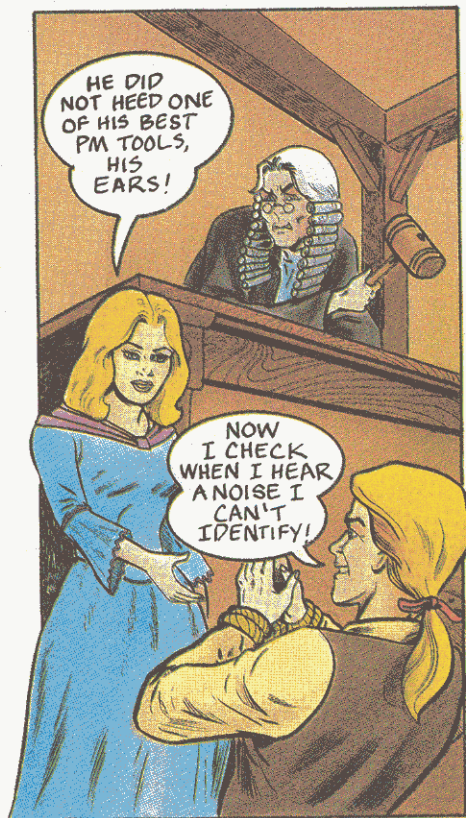
YES, BUT YOU DIDN'T SEE THE WHEELS FALL OFF. MILES IS NOT A WITCH, HE'S JUST GUILTY OF FAILING TO LISTEN!

"THE WHEELS WERE SQUEAKING AND NEEDED GREASE, BUT MILES IGNORED THE WARNING."



HE DID NOT HEED ONE OF HIS BEST PM TOOLS, HIS EARS!

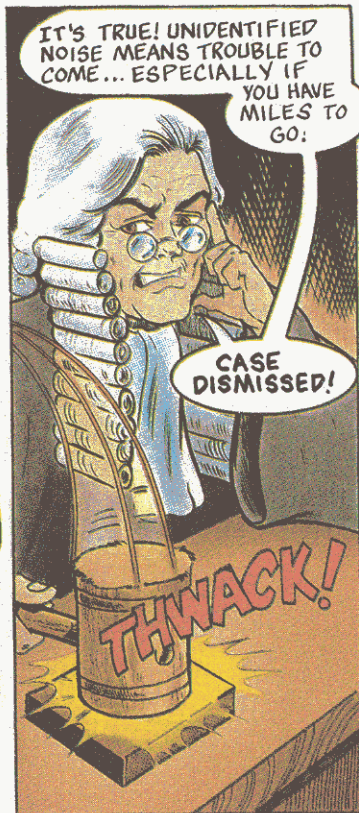
NOW I CHECK WHEN I HEAR A NOISE I CAN'T IDENTIFY!

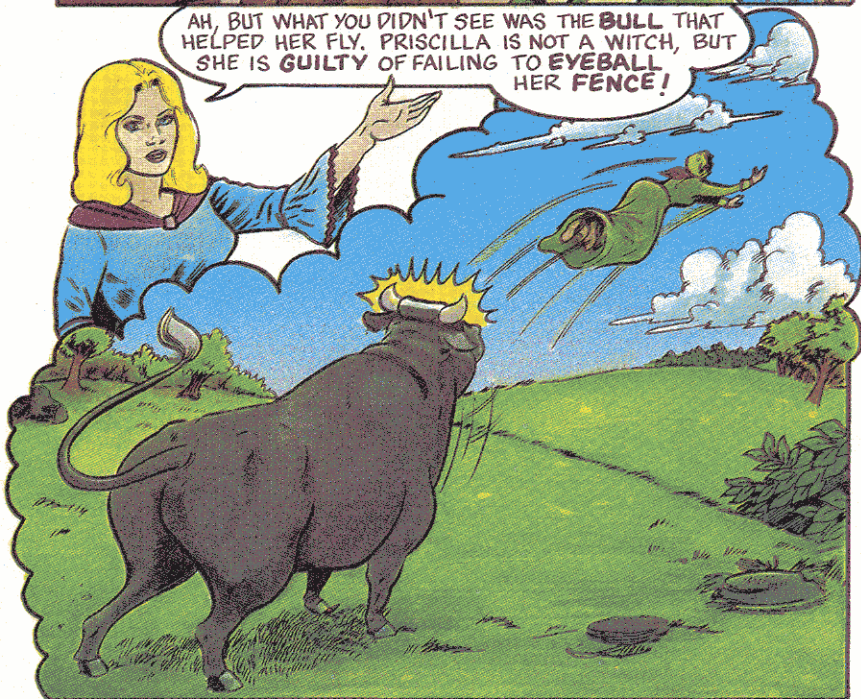


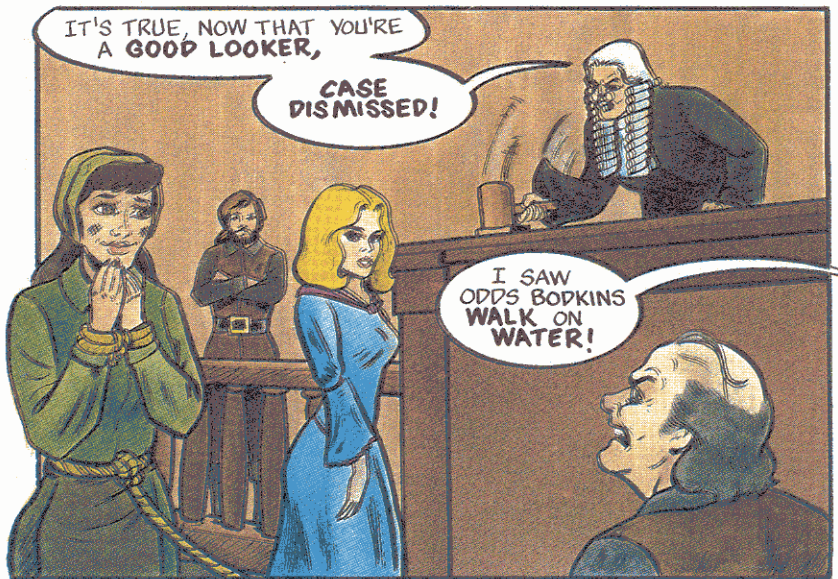
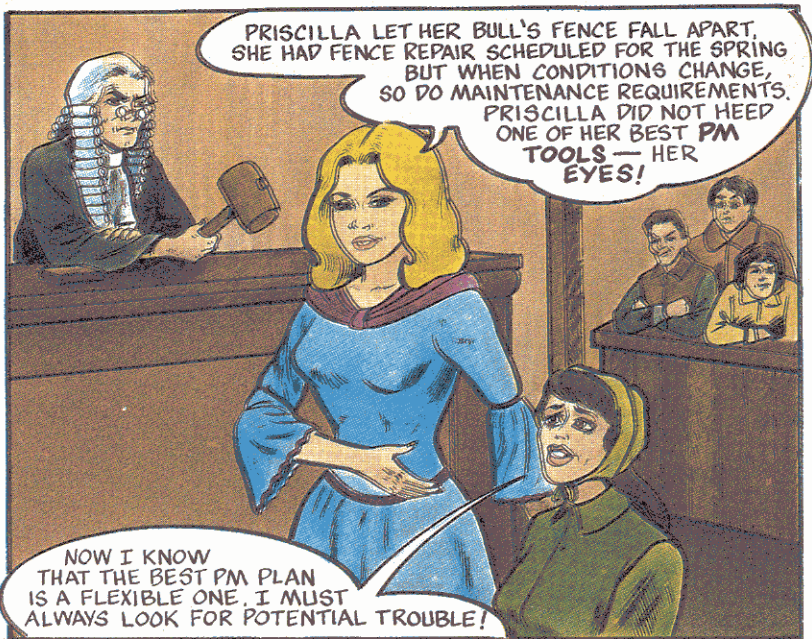
IT'S TRUE! UNIDENTIFIED NOISE MEANS TROUBLE TO COME... ESPECIALLY IF YOU HAVE MILES TO GO!

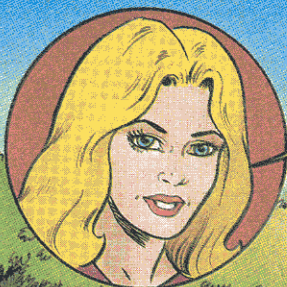
CASE DISMISSED!

THWACK!





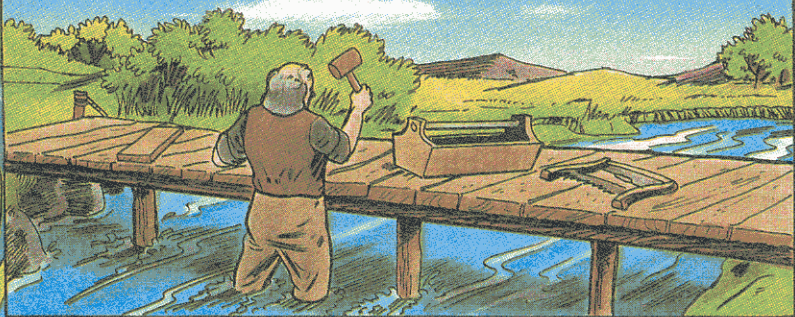




ODDS APPEARED TO WALK ON WATER, BUT IT WASN'T WITCHCRAFT. HE SIMPLY FAILED TO EXPECT THE **UNEXPECTED**.



"ODDS DID BRIDGE MAINTENANCE DURING THE DRY SEASON, BUT HIS FIX DID NOT SURVIVE WHEN THE HEAVY RAINS CAME. THE WATER ROSE, BUT THE BRIDGE DIDN'T. ODDS IS **GUILTY OF FAILING TO SEE THE BIG PICTURE.**"



PREVENTIVE MAINTENANCE MEANS LOOKING AHEAD
AND ANTICIPATING TROUBLE BEFORE IT STARTS.
ODDS DID NOT HEED ONE OF HIS BEST PM TOOLS
— HIS **FORESIGHT!**

NOW I KNOW
THAT A JOB DONE
JUST FOR THE MOMENT
IS A JOB HALF DONE.

ODDS ARE, YOU'RE RIGHT!
I FIND YOU **NOT GUILTY**, TOO!

MILES, PRISCILLA, AND ODDS WERE
INNOCENT OF WITCHCRAFT BUT GUILTY
OF NOT GOING TO THE NEXT LEVEL
OF **PM**... MAKING IT A FULL
TIME JOB BY USING THEIR **EYES,**
EARS, AND FORESIGHT!

BUT, AS
FOR YOU,
GOOD LADY,
HOW DO YOU
KNOW THESE
THINGS?

AFTER 300
YEARS, YOUR HONOR,
IT'S TRANSPARENT TO ME
THAT A LITTLE PM WORKS
A WHOLE LOT OF
MAGIC!

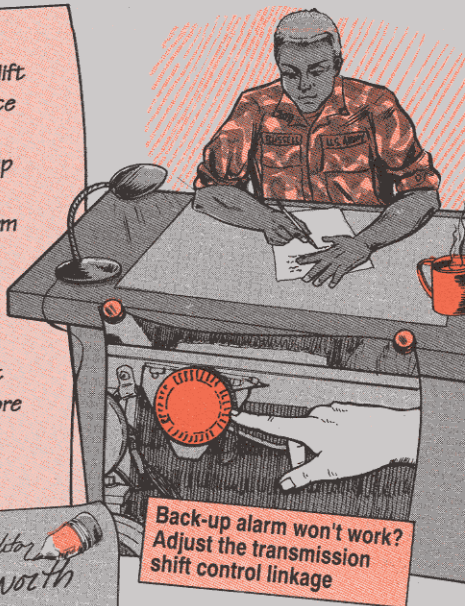
PM CAN
BE A REAL
LIFE
SAVER!

Sound the Alarm

Dear Editor,

The back-up alarm on our M4K forklift wouldn't work. Our TM says to replace the back-up switch. That doesn't always work. We replaced the back-up switch and the back-up alarm and checked the wiring. The back-up alarm still wouldn't work. Then we adjusted the transmission shift control linkage like it said in the TM. The back-up alarm worked. So-o-o-o, if the back-up alarm won't work, always adjust the linkage before replacing the back-up alarm switch.

SPC Robert Russell
Ft Leonard Wood, MO



FROM THE DESK OF THE Editor

That's a switch worth remembering!

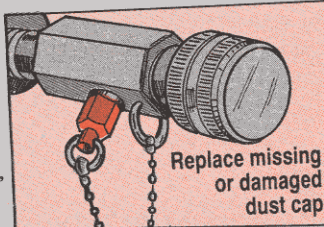
Cap the AOAP Valve

Dear Editor,

The AOAP valve used on most engineer equipment, NSN 4820-01-120-4532, has a dust cap that often gets lost or destroyed. You can't order the cap. You have to replace the entire valve at a cost of more than \$50.

However, cap, NSN 4730-00-633-4398, works fine and costs less than 50 cents. Attach it to the valve chain with wire, NSN 9505-00-293-4208, and you won't lose it.

SSG Curtis Phelps
Ft Leonard Wood



FROM THE DESK OF THE Editor

Our cap's off to you, Sergeant, for a good, money-saving tip.

Track PM Tips

ALL I HAVE ARE BILLS AND BROKEN PARTS WHAT CAN I DO?

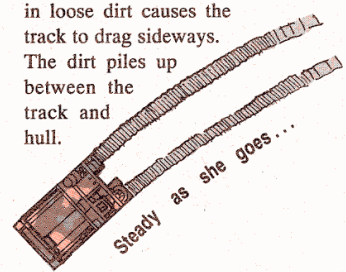
YOU CAN START BY MAINTAINING YOUR ACE WITH A LITTLE PM KNOW-HOW!



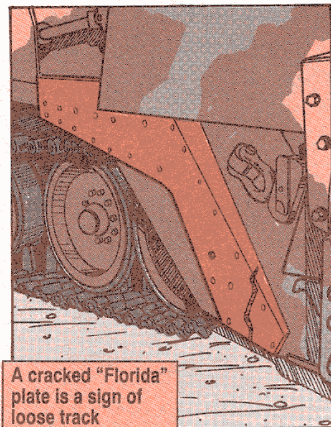
Good driving techniques and PM know-how make the track last longer on your ACE. To be an ace ACE driver, make the driving instructions in the -10 TM your bible. Also brush up on your techniques by reading FM 21-306, Manual for the Track Combat Vehicle Driver.

Drive 'em Right, Ace

Slow down to make turns in smooth, long curves. Quick-like pivot steering in loose dirt causes the track to drag sideways. The dirt piles up between the track and hull.



This puts a major side load on suspension components.



Loose track gets thrown and causes road wheels to break and road arms to bend.

Maintain 'em Right

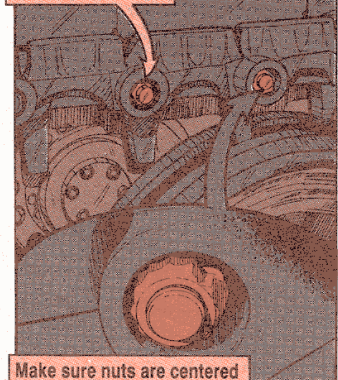
INSPECT THE TRACK AND COMPONENTS AFTER EVERY OPERATION.

HERE'S WHAT TO LOOK FOR...

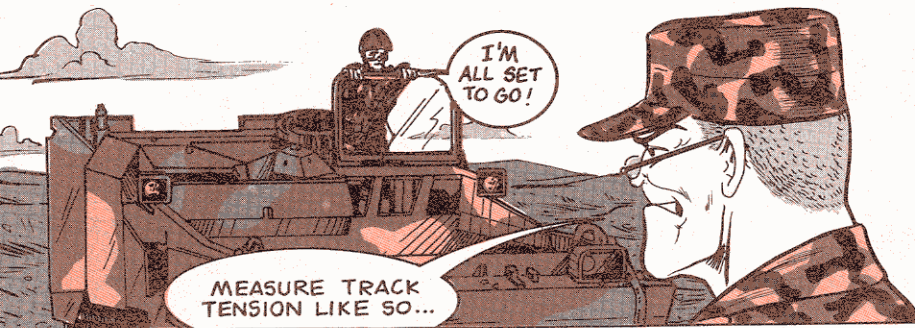


◊ Loose track shoe locknuts. When you find a loose one, tighten it to the end of the track pin threads.

Look for loose nuts



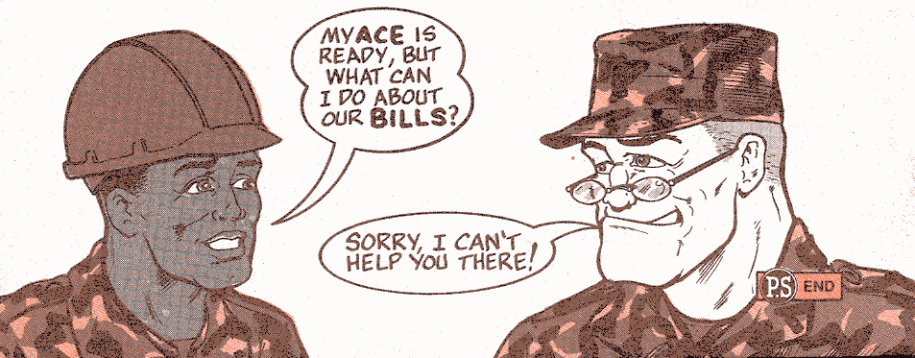
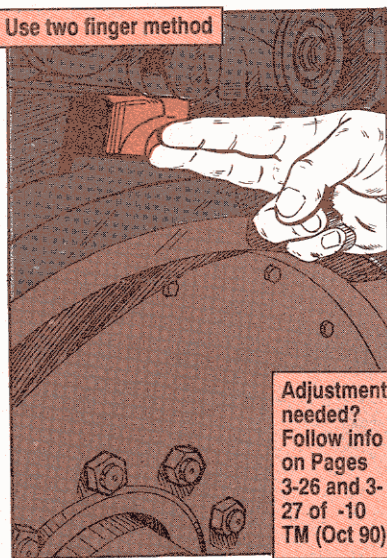
◊ Look for any pin nuts that are not centered in the bushing bore. Any shoe having a pin nut that's not centered should be watched carefully. If the pin is touching the inside surface of the bushing bore, replace the track shoe.



- Start the engine to keep the suspension charged.
- Shift to SPRUNG mode, RI, CB mode. Drive the vehicle in reverse at maximum speed for approximately 50 feet on a hard, level surface.
- Shift to N, and coast to a stop without using the brakes or turning the steering wheel.
- Do NOT set the parking brake.
- Adjust the hand throttle so the engine idles at 750-850 RPM to maintain hydraulic pressure. Let the engine idle for five minutes so that the vehicle settles completely.
- Eyeball each track at the No. 3 and No. 4 road wheels (from the front of the vehicle). The track should just touch the No. 3 road wheel and be about two fingers or $1\frac{1}{4}$ to 2 inches above the top of the No. 4 road wheel. This is different

than your -10 TM, so make a note until the new poop comes out.

Use two finger method



Roadarm Bolts Take Jolts



Loose track also damages the 12-point bolts that mount the front roadarm to the actuator.

A loose track rubs against the bolts, causing them to back out and be sheared off. If enough of them shear off, the roadarm loosens, which could throw a track.

Eyeball the bolts to see if they're loose. Look for any marked or scraped areas where the bolts may be damaged. If bolts are loose, retighten them and continue to operate until your mechanics can replace them with self-locking bolts, NSN 5306-01-195-5809.

If bolts are damaged or already missing, get them replaced with new bolts

Loose roadwheel arm bolts? Tighten!



before you continue operations. Never reuse old roadarm bolts. They will not hold.

Be Your Own Inspector

As a SUSV operator, your job is to make sure your vehicle can do its job when the Alaskan chill turns to the Alaskan freeze.

Start your inspection by taking a slow walk around your vehicle before you start the day's run. Look for wet spots ... dangling wires ... broken or missing parts ... things that grab your eye.

IF YOU FIND ANYTHING
YOU CAN'T FIX YOURSELF, JOT
IT DOWN ON YOUR DA FORM 2404.
GET IT CHECKED OUT
BEFORE YOU GO!

Windshield Wipers: Bent?
Blade worn or missing?

Windshield and Windows:
Cracked? Chipped?
Scarred? Broken? Leaking?

Lights: Broken? Burned
out? Lens broken? Dirty?

Mirrors: Loose? Cracked?
Damaged? Fogged?

Exhaust: Leaking? Rusty
thru? Clamps loose?

Hydraulic Lines: Hoses cracked or
worn through the outer cover?
Quick-disconnect couplings leaking?

Mud Flaps: Torn?
Missing? Bolts gone?

Track: Guide horns
missing or damaged?

Suspension: Loose bolts?
Torsion bars broken?

Roadwheels: Loose mountings,
rubber separation or
chunking tires?

SEE ...

Wiper Replacement


Dear Half-Mast,
The windshield wipers on our
small emplacement excavator
don't hold together very long. Is
there a replacement wiper that
works better than the old one?
SFC W.R.M.

Dear Sergeant W.R.M.,
Yes. NSN 2540-01-217-8224
gets a windshield wiper that
holds up to the job. It's the
same wiper that's used on the
CUCV. Order the wiper refills
with NSN 2540-01-024-1660.
Half-Mast

130G Graders ...

Fix Flats in a Flash

Dear Editor,
While in Southwest Asia, we had lots of flat tires on our 130G road
graders. Sand worked it's way between the tire and rim, causing the
seal to break and the air to escape.
We used innertube, NSN 2610-00-051-9578, from the M916/M920
tractor truck in the grader tires. It fits perfectly. And no more flats.
SPC Micah Rainey
C Co, 92d Engr Bn
Ft Gordon, GA

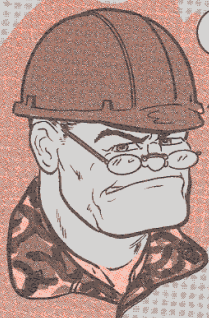
FROM THE DESK OF THE Editor 
Totally tubular notion!

Bent Boom Means No Lift

A working crane must have a boom that's up to the task. Bent lattice or chord angles and broken welds weaken the boom and put your crane out of commission.

Before operation, look over the boom for any bends in the main angles or lacings. If you see any bends — or broken welds — stop using the boom. Report it immediately!

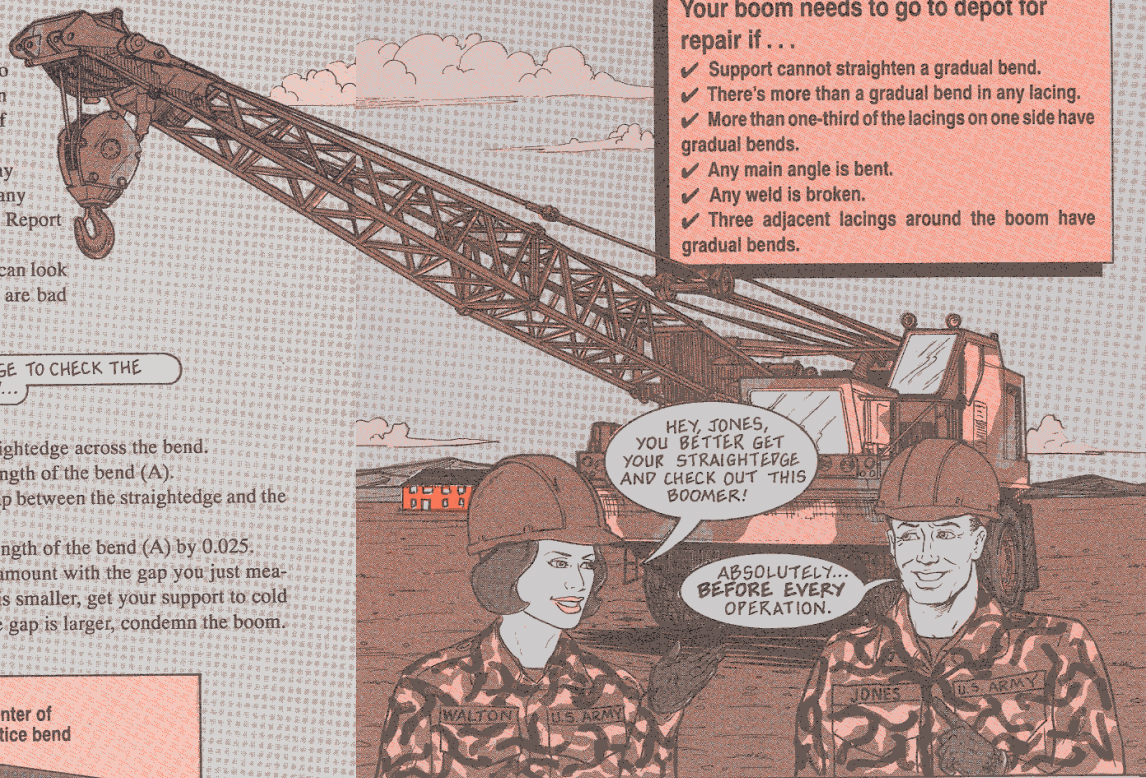
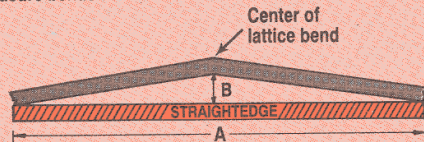
You mechanics can't repair a boom, but you can look for broken welds and measure to see if bends are bad enough to require boom replacement.



USE A STRAIGHTEDGE TO CHECK THE BOOM. HERE'S HOW...

- ✓ Center the straightedge across the bend.
- ✓ Measure the length of the bend (A).
- ✓ Measure the gap between the straightedge and the lattice (B).
- ✓ Multiply the length of the bend (A) by 0.025.
- ✓ Compare that amount with the gap you just measured. If the gap is smaller, get your support to cold straighten it. If the gap is larger, condemn the boom.

Measure bends like so:



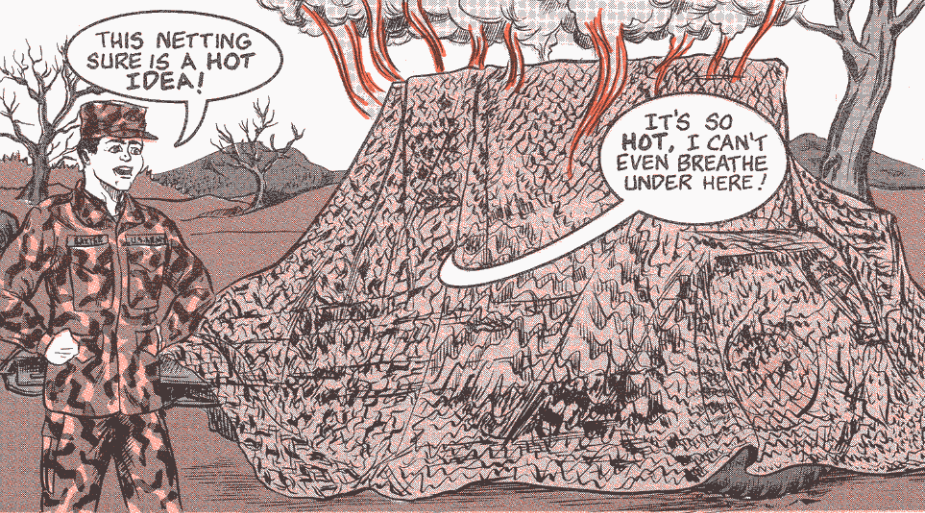
Your boom needs to go to depot for repair if . . .

- ✓ Support cannot straighten a gradual bend.
- ✓ There's more than a gradual bend in any lacing.
- ✓ More than one-third of the lacings on one side have gradual bends.
- ✓ Any main angle is bent.
- ✓ Any weld is broken.
- ✓ Three adjacent lacings around the boom have gradual bends.

Crane Outrigger Pad Pin

The 2-in outrigger pad pin for the 25-ton Grove crane (Item 15, Fig B-189 of TM 5-3810-300-24&P1) is too short. Get the right 3-in pin with NSN 5315-00-836-9644.

NO SMOKE SCREENS



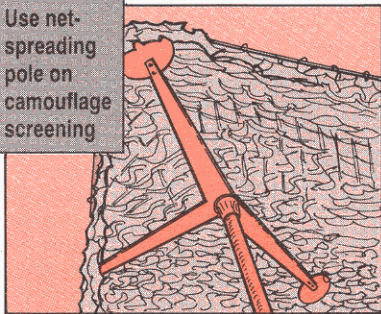
Camouflage screening close to the exhaust outlet is not such a hot idea. Hot exhaust will melt or burn the screen. And that's not all. Scraps of burned netting clog the generator's air intakes. Result: an overheated generator.

When you set up your screening, keep it clear of the exhaust outlet. Tie a net-spreading pole to the trailer to hold the netting away from the exhaust. Hang the net at least 2 feet above the exhaust and at least 2 feet from the sides of the generator. Leaving space not only protects the net from hot spots, it also allows a steady flow of air to cool the engine.

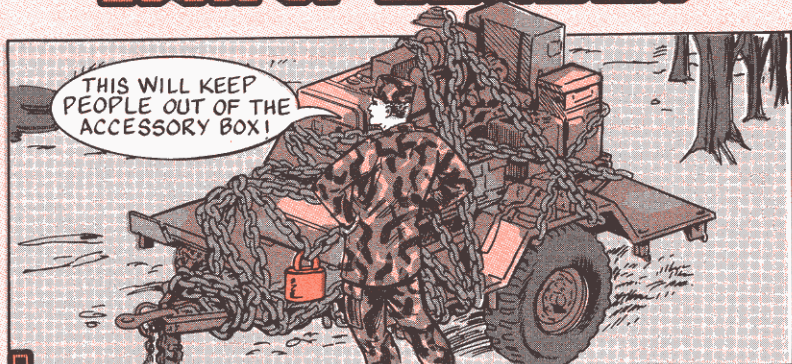
Once you've set up the screening, keep an eye on it. Support poles have a nasty habit of shifting around. Before you know it, the screening is draped over a hot exhaust.

High winds or snow can shift the screening, too. Firmly stake down the screening and make sure all support poles are in place. Brush off snow before it gets too heavy.

Use net-spreading pole on camouflage screening



LOCK UP VALUABLES



If you can't lock the accessory box on your power unit trailer, you can't be sure the items you store there will be there the next time you need 'em.

Get a hasp installed on accessory box



Keep accessories safe by having support add a hinged hasp, NSN 5340-00-234-8422. They'll also need eight solid rivets, NSN 5310-01-168-3097. The rivet NSN's not listed on the AMDF, so they'll have to order it on a DD Form 1348-6 from RIC S9I using "NSN not on AMDF" in the Remarks column.

When you get the accessory box back, you'll need padlock, NSN 5340-00-664-1324, to finish the job.

4.2-KW Generator . . .

Filter, Meter NSN Help

Dear Half-Mast,
Help! When we order the new spin-on oil filters for the 4.2, we instead get the old-style element filter. And when we order the time meter, we get the 3-KW AC meter.
SGT J.F.

Dear Sergeant J.F.,
No problem. Order the time meter with NSN 6645-00-089-8842 and the oil filter element with NSN 2940-00-832-6054. If the filter crowds the engine muffler, order a shorter filter with NSN 2940-00-586-4792.

Half-Mast

On the Cutting Edge

Dear Editor,

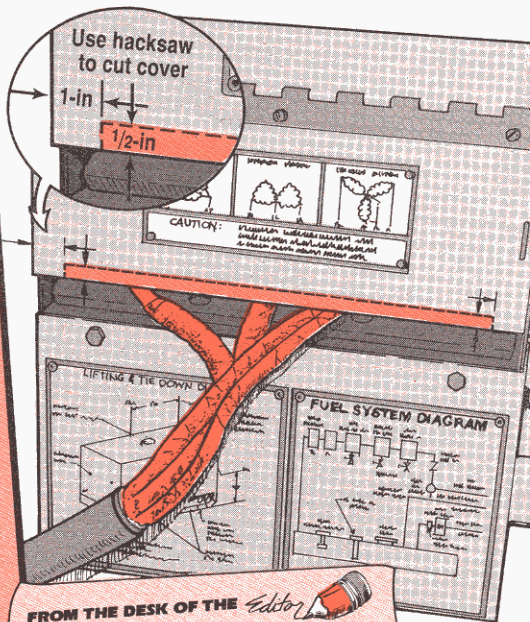
We've noticed a problem with the load terminal covers on all our 5- and 10-KW DED generators.

When the cover is snapped in place, the sharp edges on the bottom cut into the power cables that are hooked to the load terminals. Once the insulation is cut, the wires can touch each other. That causes the entire electrical system to short out.

Here's our solution:

Use a hacksaw to make a 1/2-in tall cut along the bottom of the cover, starting and finishing one inch from each end. That provides the clearance the cables need while still providing weather protection for the load terminals.

MSG Franklin L. Pike, Jr.
Ft Gordon, GA



FROM THE DESK OF THE Editor

Looks like you were cut out to handle that generator problem.

Thanks.

Filter Gasket NSN

Oil filter, NSN 2940-00-580-6304, used on PU-751 and -753 power units used to come with a gasket inside the box with the filter. But no more. Now you have to order gasket, NSN 5330-01-200-4808, every time you order the filter.

Repair Parts

HERE'S THE PLACE
TO FIND THE REPAIR PART
NSNs FOR YOUR CE-11
EQUIPMENT'S WIRE
HANDLING REEL.



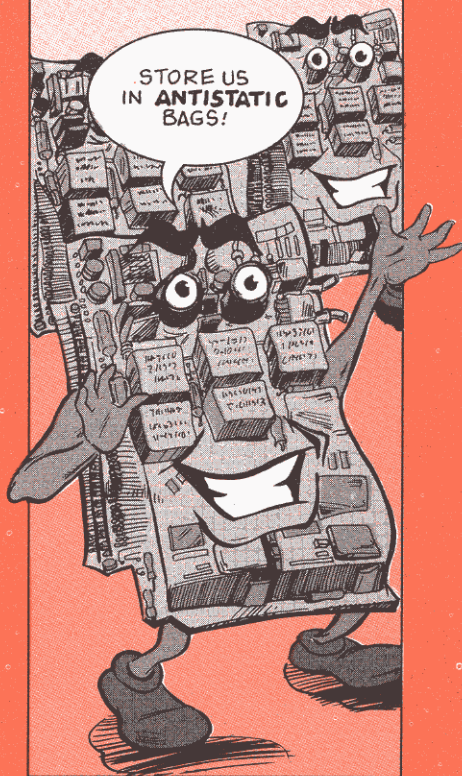
Item	NSN
Handle assembly (without crank)	3895-01-135-2538
Crank	5340-00-127-0999
*Bearing	3895-01-133-9995
*Housing assembly (with bearing)	5805-01-151-9929
*Plate assembly (with stop)	3895-01-151-9928
*Stop	3895-01-134-0308
*Retaining ring	5365-00-803-7306
Cotter pin	5315-00-842-3044

*DS must install

Remove Tailored Circuit Cards

Before you send your TD-1389(P)(V)1/G or (P)(V)2/G multiplexer-demultiplexer to your DS to return to depot for repair, remove the tailored circuit cards.

A9 through A21 circuit cards are unique to your system. So hang on to them or you'll have to order replacements.



Make Tracking Easier



ATTA BOY, SPARKY! WE'RE ON THE RIGHT TRACK NOW!

Dear Editor,
The back of DA Form 2406, Materiel Condition Status Report, is used by local commanders to identify what equipment is NMC and the reason for the failure.

When the 2406 form shows that a part is on order, the commander can find out the status of the requisition by tracking it through the supply system. To do this, the complete requisition number is needed.

However, some people put only the last 8 digits of the number in Block 10g of the DA Form 2406. They forget that the DODAAC—the first 6 digits—is needed to identify the unit submitting the requisition.

Another thing that helps the commander track the requisition is the NSN or PN. Block 10h of the 2406 asks for the part number, but a lot of people leave this block blank.

To help make tracking supply requisitions easier, I've instructed my units to include their DODAAC when they list a requisition number in Block 10g of the 2406 (Encl). I also tell them to put the NSN or part number in Block 10h.

LTC Harry Stumpf
Ft. McPherson, GA

Easier

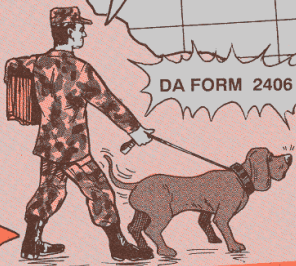
Put complete supply requisition number including DODAAC

I. DATE ADMITTED TO SHOP		II. SUPPORT SHOP JOB OR RCN NO.	III. REMARKS OR PART NO.
1. (1) ORG	2. (2) MAINTENANCE SUPPORT	WG221F-2230-0001	NSN 5935-01-053-9852

EUREKA! WE FOUND IT!

List NSN or PN of repair part on order

DA FORM 2406



FROM THE DESK OF THE Editor
Looks like you've found the right trail to follow when you track requisitions through the supply system, Sa.

DA Form 2408-9...

Do a Double Take

Dear Half-Mast,

Is it correct that only the equipment listed in Appendix E of DA Pam 738-750 requires a DA Form 2408-9 acceptance or transfer report?

Mr. J. R.



Dear Mr. J. R.,

Not quite. Maintenance Management Update 13 changed Para 5-6b(2) of DA Pam 738-750 to say that other equipment may need DA Forms 2408-9 under the US Army Vehicle Registration Program. The equipment under this program is listed in Chapter 5 of AR 710-3. So-o-o, now you have to check out Chapter 5 of AR 710-3 as well as Appendix E of DA Pam 738-750 to determine whether the item needs a 2408-9.

If your equipment is covered by both DA Pam 738-750 and AR 710-3, prepare only one set of 2408-9s.

Half-Mast

One Form—

Different Requests

Reach for a DD Form 1348-6. Fill out the form with this information:

IT CAN BE FRUSTRATING TO ORDER A PART WITHOUT AN NSN OR A PART WITHOUT AN NSN ON THE AMDF.

TRYING TO ORDER THESE PARTS IS DRIVING ME CRAZY! I GIVE UP!

DON'T QUIT YET! FOLLOW THESE TIPS TO ORDER THESE SPECIAL ITEMS ON DD FORM 1348-6.



First check the SMR column in your parts manual. Make sure you're not spinning your wheels over a part the SMR code says is not available or is used at support levels only.

CAGE and Part Number Requests

If your publication lists only a part number for an item, look for a Commercial and Government Entity (CAGE) code to go with the part number.

The CAGE should show up in a column near the part number, in parentheses after the description of the part, or in the introduction to the parts section of the publication.

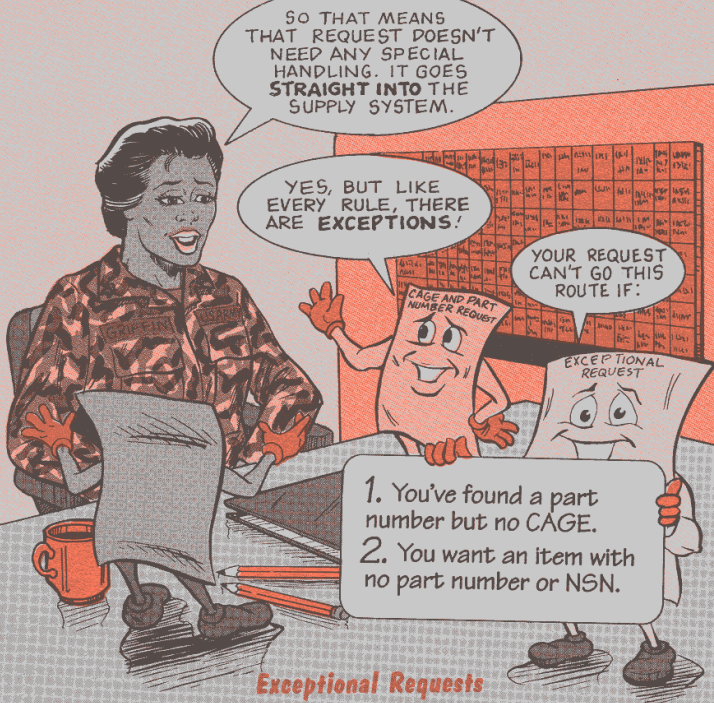
If all you find is the manufacturer's name in the pub or on the part, you're still in. Check the Cataloging Handbook H4/H8 Commercial and Government Entity (CAGE) portion of the FEDLOG CD-ROM.

Chances are you won't have that pub. So get on the phone and ask your support people to look up the manufacturer for you. Once they give you the 5-part (digit) CAGE, you're in business.

- ☒ 5-part (digit) CAGE plus part number (the CAGE always goes before the part number on your request). If the part number has dashes, spaces or slashes in your publication, enter it the same way in Columns 13-22 of DD Form 1348-6.
- ☒ End item code (EIC), if one has been assigned to the part's end item, in card columns 54-56. You'll find the EIC between the nomenclature and the line item number on the AMDF.

- ☒ Any special funding code.
- ☒ If the end item model affects which part you need, give support the specific make and model of the end item.
- ☒ And, if a special control item code's been assigned, add that.

Fill in the DODAAC, document number, quantity, unit of issue, demand, priority and advice code blocks as needed on the request and send it through your supply channels.



Exceptional Requests

For those requests, your support will need all the help you can give them. So, get with whoever wants the part and have them help you fill in these blocks on the DD Form 1348-6:

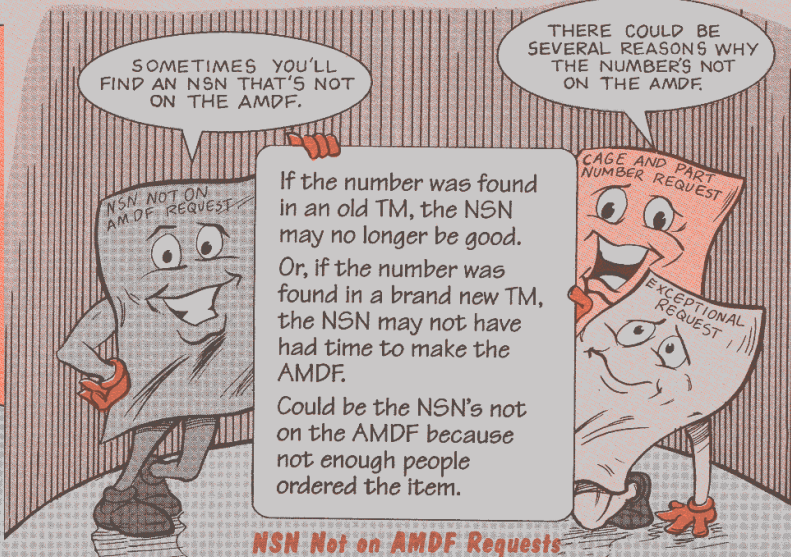
- ☑ The pub number, date and page or figure number.
- ☑ What the part looks like: size, shape, or anything unusual about the part.
- ☑ What the part does: turns, hums, whistles, pushes or whatever.
- ☑ Where the part goes on the end item.
- ☑ Any part or manufacturer's number or name.

☑ End item model and type.

Be sure you put your name and DSN or commercial phone number on the request in case the supply folks need more information.

If your supply system demands special info like a fund citation, write it in the Remarks block.

The DD Form 1348-6 with exception data is not handled with computers — it's handled manually. You may have to wait a while for these requests to go through the system.

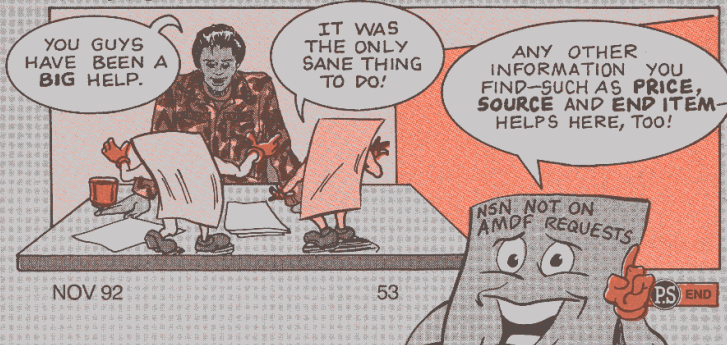


NSN Not on AMDF Requests

Adding and keeping items on the AMDF works like your PLL. Not enough requests result in the item being dropped until the demand increases.

Whatever the reason, the solution's the same — treat the non-AMDF stock number like a part-number request. Order the item on a DD Form 1348-6 by putting the NSN in card column 8-20.

Make sure you reassure your support folks that the NSN's OK by telling them where you got the NSN. And, write "Not on AMDF" in the Remarks block.



Do You Know the Error Code?

SOMETIMES YOU GET AN ERROR MESSAGE WHEN YOU SEND IN A PUBS REQUEST TO BALTIMORE.

IT GIVES AN **ERROR CODE** STATING WHAT'S WRONG WITH YOUR REQUEST!

Here are those codes that Baltimore uses and what they mean to keep your pubs account up-to-snuff. The two-digit code appears in Columns 61-62 of the message.

Code	Meaning
ER	The item requested in Columns 11 through 38 cannot be identified by the Baltimore Pubs Center. Check your DA Pam 25-30 to see if you used the correct number and authorized abbreviation for the item.
LR	This form is not stocked by the Pubs Center because it is locally reproduced. Check DA Pam 25-30 to see if the form has an "R" after its number. If so, see what prescribing directive is listed for the form, then check the directive for a sample of the form you can reproduce.
NC	The item requested is classified and your account is not authorized receipt of classified publications.
NS	The item requested is not stocked by the Pubs Center. Check DA Pam 25-30 for the source of supply.
PA	The item requested is controlled by the proponent. You must send in a request to the proponent listed in the publication index.
R4	There is an error in the change- requested columns (Columns 40 through 42). You will receive this code if you did not use the correct code for the changes you ordered. You will also receive this code if you ordered a change that does not exist. Check DA Pam 25-30 for changes.
R5	There is an error in the quantity required columns (Columns 44 through 48). These columns must contain numbers only. If you use letters, an error will result.

Column	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	00
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	00	

Code	Meaning
R6	The account number given (Columns 1 through 5) is not a valid account number. Verify your account number, correct it and resubmit the requisition. The first position of your account number must be a letter and the other four positions must be numbers.
R7	The account (Columns 1 through 5) is not authorized resupply service. If resupply service is required, submit a new DA Form 12-R to have this service added to your account.
R8	The account (Columns 1 through 5) is not authorized blank-forms service. Contact your overseas center or publications stockroom for the blank forms you need.
R9	The ZIP code or APO number (Columns 56 through 60) does not agree with the Pubs Centers name- and-address master file. Verify your ZIP code or APO number. If you made an error, correct it and resubmit the requisition; If the ZIP code or APO number you gave on your requisition is correct, you must change the address you have on file by submitting a revised DA Form 12 to Commander, USAAGPC, 2800 Eastern Blvd, Baltimore, MD 21220. Submit the revised DA Form 12 before sending any more requisitions.
RP	The changes requested (Columns 40 through 42) have been reprinted and consolidated into a new basic publication. Determine the number of basic publications you need and order them.
UI	The unit of issue requested (Columns 50 through 54) is incorrect for the item or cannot be identified. Use the correct unit of issue given in the publication indexes.
UP	This item is no longer published as a stand-alone publication. Check DA Pam 25-30 to determine which UPDATE handbook contains this publication. Resubmit your request for the next edition of the UPDATE.

Send Request

When you need to replace lost or worn-out pubs, the best way is to order them over the Automatic Digital Network (AUTODIN).

To order pubs over AUTODIN, you'll need to use DD Forms 173 and 1392. You use the same format on these forms as on DA Form 4569.

JOINT MESSAGEFORM

PAGE 01, DATE TIME 011200Z, MONTH JAN, YEAR 92, RR, UNCLAS, TC AGZJ

FROM DIRUSAISS LEXINGTON KY //ASNC-LEX//

TO CDRUSAPC

Acct # UNCLAS

Publications AR 18-1

Changes requested ALL

Qty required 10 EA

Unit of Issue 40511

Zip code or APO number 40511

Col 1, Col 11, Col 40, Col 47, Col 50, Col 56

THIS IS HOW A CORRECT DD173 FORM IS FILLED OUT.

In Block Labeled ...	Enter ...
Precedence	Routine
Classification	Unclassified
Address for (RIC)	CDR USAPPC Alexandria VA
Routing Identifier Code (RIC)	RUEWRHP
Language Media Format Code (LMF)	Block must read AC, TC, CC, XC or C. The second position must always be a C. Check with your communication folks to see which LMF you should use.
Content Identifier Code (CIC)	AGZJ

Over AUTODIN

USE THIS FORMAT TO LIST THE PUBLICATIONS YOU NEED:

- ✓ Account number
Columns 1-5
- ✓ Publication number
starts at Column 11
- ✓ Changes requested
Columns 40-42
- ✓ Quantity required
Columns 47-48
- ✓ Unit of issue
Columns 50-51
- ✓ ZIP code or APO number
Columns 56-60

IF YOU DO NOT HAVE ACCESS TO AUTODIN, MAIL YOUR COMPLETED DA FORM 4569 TO:

Commander
USA Publications
Distribution Center
2800 Eastern Blvd
Baltimore, MD 21220-2896

TACOM QDR/EIR ...

Send 'em by Electronic Mail

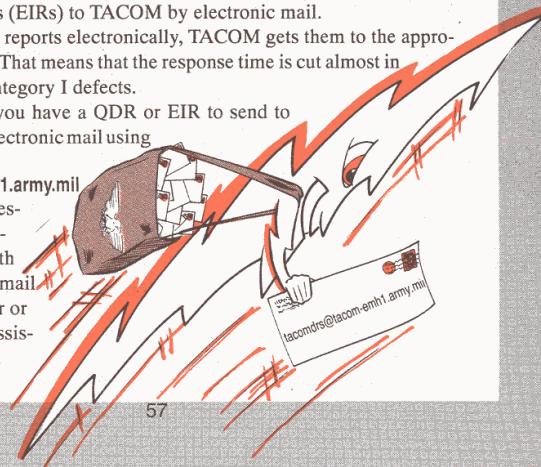
You can now submit Quality Deficiency Reports (QDRs) and Equipment Improvement Reports (EIRs) to TACOM by electronic mail.

When you send the reports electronically, TACOM gets them to the appropriate office quicker. That means that the response time is cut almost in half, especially on Category I defects.

So-o-o, next time you have a QDR or EIR to send to TACOM, send it by electronic mail using this address:

tacomdrs@tacom-emh1.army.mil

If you have any questions concerning electronic mail, check with your local electronic mail systems administrator or TACOM Logistics Assistance Representative.



Read 'em and Heed 'em



If you're not reading and heeding TB 43-0001-series pubs (that's how the digests are cataloged), you're missing information on:

- Safety issues
- Supply ordering
- NSN-PN updates
- Minor modifications to make equipment work better or safer
- Changes to technical publications
- Responses to previously submitted Equipment Improvement Recommendations
- Troubleshooting and use of test equipment

THE DIGESTS COME OUT PERIODICALLY. THE INFO IN EACH ISSUE IS GOOD FOR TWO YEARS.

EIR and Maintenance Digest TB 43-0001-	Equipment	Order on a DA Form 12-23-E Block #
03	Aircraft Equipment	2429
06	Commo Security Equipment	0611
11	Troop Support Equipment	0398
17	Chaparral Missile System	0613
26	TOW/TOW2 Antitank System	0619
27	LANCE Missile System	0623
36	Armament, Munitions and Chemical Equipment	0313
39	Tank-Automotive Equipment	0625
52	MLRS Equipment	0628
53	Patriot Missile System	0916
56	Avenger Missile System	4370
61	TMDE	0579

HERE ARE THE DIGESTS AVAILABLE AND HOW TO GET ON PINPOINT DISTRIBUTION.

IF YOU KNOW YOUR UNIT HAS SUBMITTED THE RIGHT FORMS AND IS SUPPOSED TO BE GETTING THE DIGESTS, BUT IS NOT, CHECK WITH YOUR LOCAL PUBLICATIONS CONTROL OFFICER. IF DIGESTS ARE GETTING TO THE PUBS OFFICE AND YOU'RE NOT GETTING YOUR FAIR SHARE, ASK FOR THEM.



If you have questions about your unit's account for the digests, call the Baltimore Pubs Center at:

DSN 584-3775/3975
Commercial (410) 682-8528
or (410) 671-3775/3975

or write:

US Publications Distribution Center
2800 Eastern Blvd
Baltimore, MD 21220

Supply Excellence Awards

HERE ARE THE WINNERS
AND RUNNERS-UP OF THE FY92
ARMY CHIEF OF STAFF SUPPLY
EXCELLENCE COMPETITION.

ACTIVE ARMY MTOE UNITS

Company, Battery or Troop

Winner—21st Trans Co (CAR), Seoul, Korea

Runner-Up—766th MI Detachment, Berlin, Germany

Battalion or Squadron

Winner—25th FSB, Schofield Barracks, HI

Runner-Up—307th Sig Bn, Waegwan, Korea

ACTIVE ARMY TDA ORGANIZATIONS

Company, Battery or Troop

Winner—Senior ROTC Group,

Montana State University, Bozeman, MT

Runner-Up—USA Vulnerability Assessment Laboratory,
White Sands, NM

Battalion or Squadron

Winner—10th Area Support Group, Torii Station, Okinawa

Runner-Up—United Nations Cmd, Joint Security Area,
Demilitarized Zone, Camp Bonifas, Korea

ARMY RESERVE MTOE UNITS

Company, Battery or Troop

Winner—HHC, 302d Maint Co, St Paul, MN

Runner-Up—447th Med Co (Clearing), Grand Forks, ND

Battalion or Squadron

Winner—397th Engr Bn, Eau Claire, WI

Runner-Up—140th MI Bn, Bell, CA

ARMY NATIONAL GUARD MTOE UNITS

Company, Battery or Troop

Winner—696th Maint Co (Heavy Equipment) (GS), Kinston, NC

Runner-Up—HHC, 69th Inf Bde, 35th Inf Div, Topeka, KS

Battalion or Squadron

Winner—130th Engr Cbt Bn (CORPS), Vega Baja, PR

Runner-Up—HQ, 4th Bn, 113th FA, High Point, NC

TDA Company

Winner—HQ Detachment, MA State Area Cmd, Reading, MA

Runner-Up—HQ Detachment, VA Troop Cmd, Richmond, VA





SEE Side Mirror Mix-up

There's a supply mix-up with the SEE side view mirrors. To get the SEE's mirror, forget the NSN and order on a DD Form 1348-6 with CAGE 64678 and PN 419 811 70 30 from RIC S9C.

Bradley Drain Plug NSN

The part number, 2623132-3, shown for the final drain plug, Item 1, Fig 12, of TM 9-2350-252-24P1, is wrong. Use part number 11589346, which crosses to NSN 4730-00-640-0279.

New Mortar Brushes

New mortar cleaning brushes are available for the 60MM, 81MM, and 4.2-in mortars. Order the 60MM's with NSN 1010-01-302-6789, the 81MM's with NSN 1015-01-296-0875, and the 4.2's with NSN 1015-01-291-9350.

M9 ACE Hull Drain NSN

Use NSN 2590-00-898-6785 to get the hull drain valve for the M9 armored combat earthmover. Make a note till the TM is updated.

OH-58A/C Engine Parts

Use NSN 5310-00-807-1475 to get the generator nut, Item 129A of Fig 48 in TM 55-1520-228-23P, and NSN 5310-00-167-0835 to get the washer, Item 129B. Neither item is identified in the figure description.

Cheaper Air Cleaner

You can use a less expensive air cleaner on your M939/A1/A2 trucks. It's NSN 2940-00-197-5364. It's used on M809-series 5-tonners and costs \$100 less than NSN 2940-01-090-4481 for the M939-series trucks.

2 1/2-Ton Truck Shackle

NSN 4030-01-316-2554 gets a front lifting shackle for 2 1/2-ton series trucks. The NSN given for Item 6, Fig 140, of TM 9-2320-209-20P is wrong.

HEMTT Dust Cap NSN

Keep water, dust and dirt out of the HEMTT's air brake chambers with a larger dust cap. Order it with NSN 5340-01-163-2073.

Distribution: To be distributed in accordance with DA Form 12-34-E, Block 0312, for TB-43-Series

Would You Stake Your Life ^{right now} on the Condition of Your Equipment?

★ U.S. Government Printing Office: 1992/648-071/60010

For sale by the Superintendent of Documents, U.S. Government Printing Office Washington, DC

BEFORE YOU TOSS THAT WIRING HARNESS...



DID YOU
MAKE SURE
NO REPAIR IS
POSSIBLE?

MANY WIRING
HARNESSES CAN BE
REPAIRED AT
SUPPORT!

...EYEBALL THE **MAC**

(**M**AINTENANCE **A**LLOCATION **C**HART)