

Issue 475

PS

June
1992

THE PREVENTIVE MAINTENANCE MONTHLY

TB 43-PS-475



HE MAY
THINK HE'S
DONE, BUT WHAT
ABOUT THE SAND IN
MY HYDRAULICS?

WHAT
ABOUT THE
CORROSION
ON MY
ELECTRICAL
CONNECTORS?

WHAT
ABOUT THE
WATER IN MY
FINAL
DRIVE?

♪ TAKE ME
OUT TO THE
BALLGAME...
♪

The Toughest PMCS...

Take the Time to be Thorough

IF YOU HAVEN'T YET PULLED ANNUAL SERVICE ON DESERT SHIELD / DESERT STORM EQUIPMENT, DO IT NOW!



Yep, the world's best equipment stood up to the challenge of Operations Desert Shield and Storm and won. Many new vehicles and weapons systems that had never seen combat did what they were designed to do, and did it well.

But never forget that the world's best equipment was not capable of doing any of its missions without maintenance—tough, sweaty, back-breaking maintenance.

There's another enemy on the horizon, though—the enemy of all equipment that must be transported from one side of the world to the other: Neglect.

Sure, you cleaned up your gear so it would pass international transport requirements. But what about the preventive maintenance that's missed in transport—and in the months since?

Nothing can go unchecked and unserved. Each and every system must

be given the best PMCS you and your crews can give them. You must look for corrosion everywhere. You must look for contaminated fluids everywhere. You must clean bearings and drain gearcases. You must flush hull floors and lubricate every moving part that needs it.

There's sand and dirt in all Army equipment that participated in the desert actions. It's in transmissions, engines, radiators and brakes. It's in axles and final drives. Even closed systems, like the M2/M3-series Bradley transmission, are contaminated.

So, how do you prepare now for what might happen tomorrow? How can you know you're ready to fight again? **Pull your annual services—complete, total, top-to-bottom, front-to-rear—now.**

That's what it takes to win this war, too.



THE PREVENTIVE MAINTENANCE MONTHLY

TB 43-PS-475, 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:

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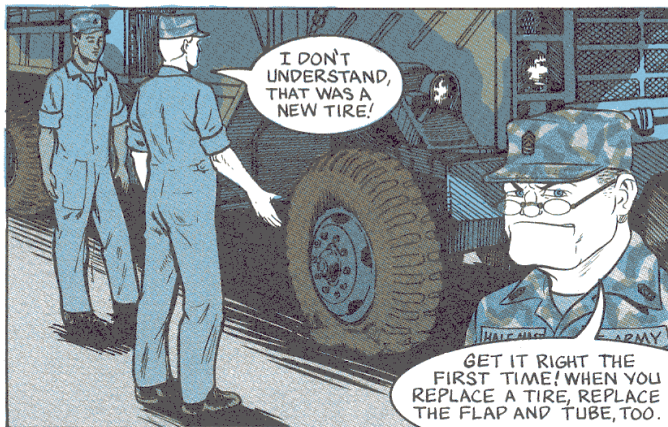
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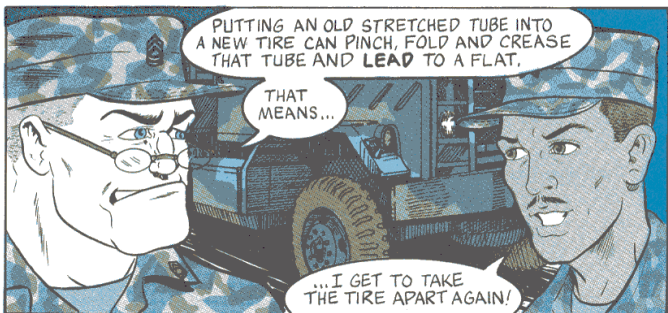
New Flap, Tube Finish the Job

Some jobs you just naturally want to get right the first time—like putting a new or retreaded tire on your truck or trailer.

The last thing you want to see after wrestling a tire for a couple of hours is another flat.

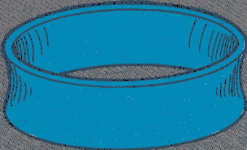


Those old tubes and flaps were shaped to the old tire, just like an old shoe forms to your foot. Over time, the tube stretched to fit the inside of the old tire. It will be too big for the new one.

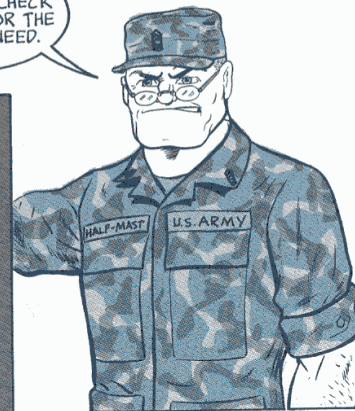


Just any flap won't do, either. It has to be the right size. New tires come with flaps. Retreads don't.

IF YOU HAVE A RETREAD CHECK THIS LIST FOR THE FLAP YOU NEED.



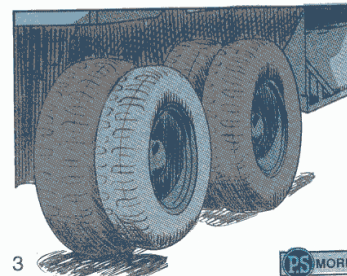
Tire Size	Flap, NSN 2640-00-
7.50-15	895-5767
7.50-16	696-0466
7.50-18	797-0510
8.25-20	451-8088
9.00-16	208-7541
9.00-20	147-5160
11.00-20	158-5617
16.00-24	806-0488



You may get caught in a pinch someday and have to re-use a flap. Always keep a couple of good used flaps on hand. Give a used flap a good going over, tho. Make sure it's the right size and doesn't have any cracks, folds, tears or sharp edges that could damage a tube or tire.

Match Dual Tires

When you put a repaired tire back on your vehicle, make sure it is matched with other tires on the vehicle. See Para 2-7 of TM 9-2610-200-14 for the word. Tires should be matched for size, tread wear, tread design and construction (bias, belted bias or radial ply).



To Air Is Smart

To get max life out of your tires, make sure they have enough air to run on.

The biggest cause of blow-outs is under-inflation.

A tire hits maximum operating temp within a few minutes of driving. If it's under-inflated, the heat continues to build until you get a failure or damage the casing.

To make it easy for operators to check tires, get a tire gage. NSN 4910-00-204-3170 brings a low-cost gage that measures up to 130 PSI.

RETREAD
TIRES ARE SAFE.
NO ARGUMENT.
BUT UNCLE SAM
STILL PUTS SOME
LIMITS ON
THEIR
USE.



Where Do Retreads Go?

Para 4-46 on Page 27 of AR 750-1 (Maintenance Management Update) says you can't use retreads on M747 semitrailers or the front axles of:

Buses
M911 C-HET
M915, M915A1
M916 or M920



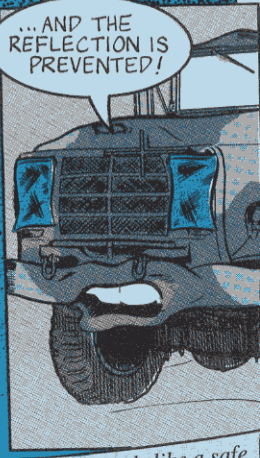
A COVER FOR REFLECTING GLASS

Dear Editor,
During field exercises, we noticed the glass on the headlights of our tactical trucks reflect light.

So we decided to cover the headlights with burlap blinders. We cut a piece of burlap the width of the light and the length needed. We tied the burlap to the brace on the grilles above the lights of our 2 1/2- and 5-ton trucks and around the hoods of our HMMWV's.

During travel, the burlap is rolled up and tied securely. Then during tactical conditions—day or night—we untie it and let it down.

CPT Daniel Fagundes
Ft Ord, CA



(Editor's Note: Sounds like a safe shield for you and your vehicle!)

HMMWVs...

Dust Cap Cable Cost-Cutter



A little "know how" with the right parts can save you some bucks.

Take that little cable that holds the HMMWV's slave receptacle's dust cap in place, for instance. One look at the AMDF price when ordering a new cable will make you take a second look. It costs \$114+.

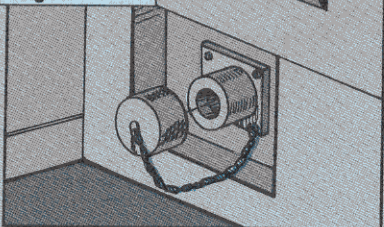
For about 50 cents you mechanics can make a cable that will work just as well.

- Take a 9-in piece of nylon cord, NSN 4020-00-246-0688, and put a terminal ring, NSN 5940-00-143-4794, on each end of the cord.

- Then use pliers to crimp the terminal rings to the cord.

You've got a better cap holder than the original chain... and it's cheaper to boot.

Crimp terminal rings on cord



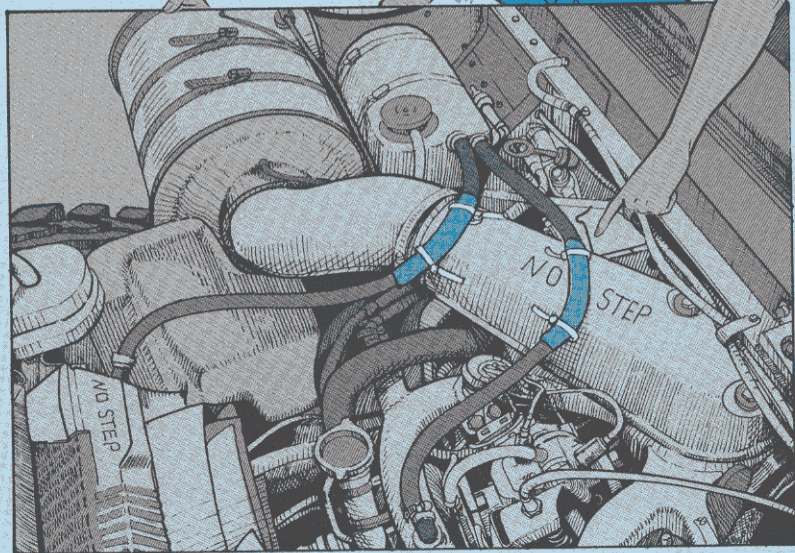
Hose Coverup

Vibration causes the return and supply hoses to the surge tank to rub against the air horn assembly on the HMMWV's engine. Enough rubbin' and those hoses start leaking.

You mechanics can rub out that raw deal like so:

- Make hose covers with two 6-in pieces of heater hose, NSN 4720-00-622-4743, and split 'em down the length of each hose.
- Put the covers over the surge tank's return and supply hoses. Position the covers on the hoses where they rub against the air horn assembly.

USE ELECTRICAL TIE STRAPS, NSN 5975-00-985-6630, TO KEEP THE COVERS IN PLACE.



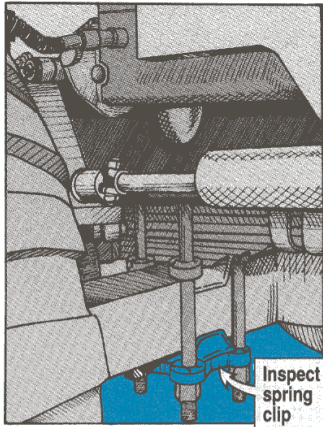
Springs Break

HERE'S HOW:

THE SPRING CLIPS THAT HELP HOLD UP YOUR TRUCK'S FRONT LEAF SPRINGS CAN CRACK, LEAVING YOU WITH SHAKY STEERING OR NO STEERING AT ALL!



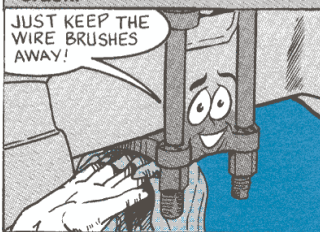
The cracks show up running from the center hole of the spring clip to the outer edge.



The Tank-Automotive Command has put out Safety-of-Use Message 91-16, requiring all users to inspect the clips.

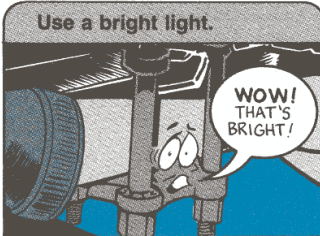
Clean the area well. Forget using a wire brush, though. Its scratches can hide a crack.

JUST KEEP THE WIRE BRUSHES AWAY!

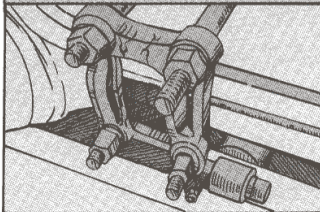


Use a bright light.

WOW! THAT'S BRIGHT!

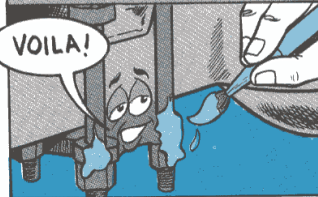


Cracked paint can clue you in to a crack. Peel away loose paint and look closely for cracks.

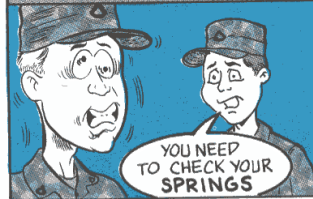


If cracks are found, the vehicle is NMC until the clip is replaced. Mark the bad clip with a dab of paint. The crack may not show up with the load off.

VOILA!



Driver, if you note any vibration during operation, stop the truck and have it towed home. Once there, have the spring clips looked over ASAP.

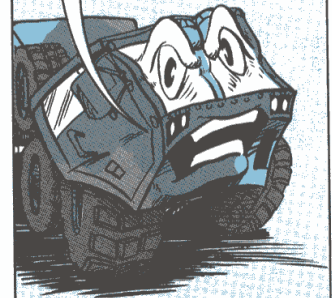


Notify your local TACOM LAR if you find bad spring clips. Have vehicle serial number and miles/hours info ready.

HEY, TACOM, WE HAVE BAD SPRING CLIPS!



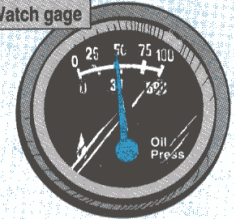
Let the Pressure Build



HEMTT drivers, don't be in a hurry to move out after you fire up your rig.

Eyeball the oil pressure gage first. Within 10-15 seconds you should have between 40 and 60 PSI. If not, call in your mech.

Watch gage

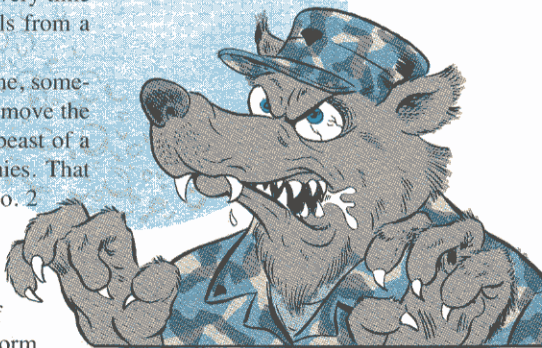


No reading—or a low reading—on the gage means your engine isn't getting enough lube. Shut down now! Friction can wipe out your engine.

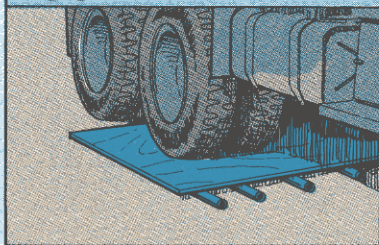
Removing Them the Easy Way

Do you turn into a werewolf every time you have to take off dual wheels from a big truck or semitrailer?

Although it is not normally done, sometimes it becomes necessary to remove the dual wheels as a set, and it's a beast of a job when you're out in the boonies. That wheel lift truck in the No. 1 or No. 2 Common shop set makes the job easier in the shop, but it won't work in the dirt and the sand and the mud. Here are a couple of ideas to help keep you in human form.



1. Use plywood and four camouflage poles.



- Block the vehicle to keep it from rolling forward or backward.
- Jack up the rig.

- Remove all parts necessary to slide off the duals as a set.

- Lay the four camouflage poles parallel with the truck, under the wheels.

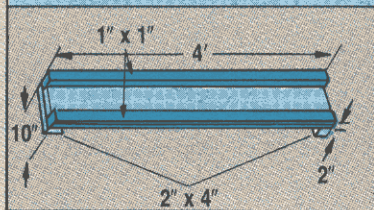
- Lay the plywood on top of the poles.

- Carefully lower the jack to the point where the tires firmly touch the plywood.

- Slide the wheels onto the plywood.

- Roll the board and the wheels over the poles from under the truck.

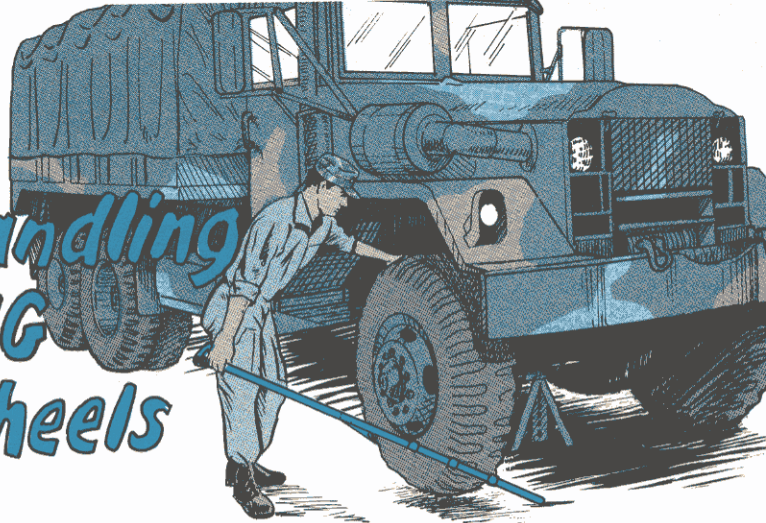
2. Make a homemade wood slide to remove the duals. Make it like so:



- To make the wheels easier to slide, spread some liquid soap, tire lubricant or ethylene glycol on the board.

- Carefully lower the jack as above and slide the duals on or off the truck.

Handling BIG Wheels



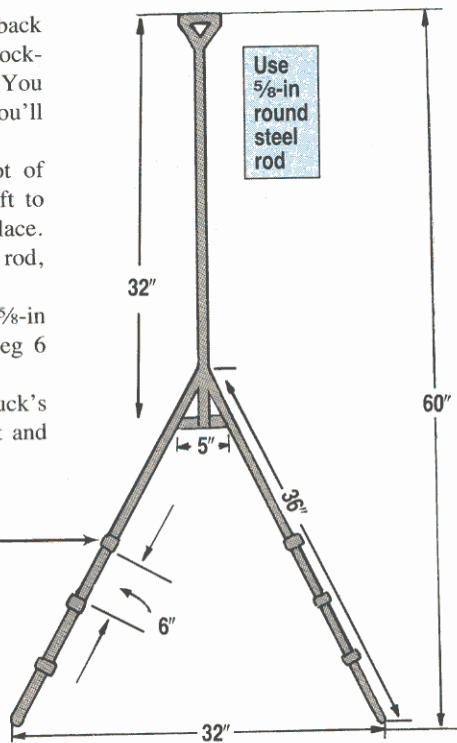
Trying to put those big wheels back on a vehicle can turn into a real knock-down, drag-out wrestling match. You may win, but chances are... you'll feel like a loser.

Next time, save yourself a lot of stress and strain by making a lift to raise the wheel and push it in place. You'll need a $\frac{5}{8}$ -in round steel rod, NSN 9510-00-596-2065.

Make it like this: Weld three $\frac{5}{8}$ -in \times 1-in pieces of rod on each leg 6 inches apart to hold the tire.

Lay the lift in place under the truck's hub. Then roll the wheel onto it and raise it into place.

**Weld 3
 $\frac{5}{8}$ -in \times 1-in
pieces of rod on each
leg 6 inches
apart to hold tire**



Test Light...

A Handy Circuit Tester

Quick, easy-to-use, versatile. That's test light, NSN 6625-01-260-2387, in your general mechanic's tool kit.

Use it to check for voltage in the electrical systems of cars, trucks, combat vehicles, construction equipment and material handling equipment.



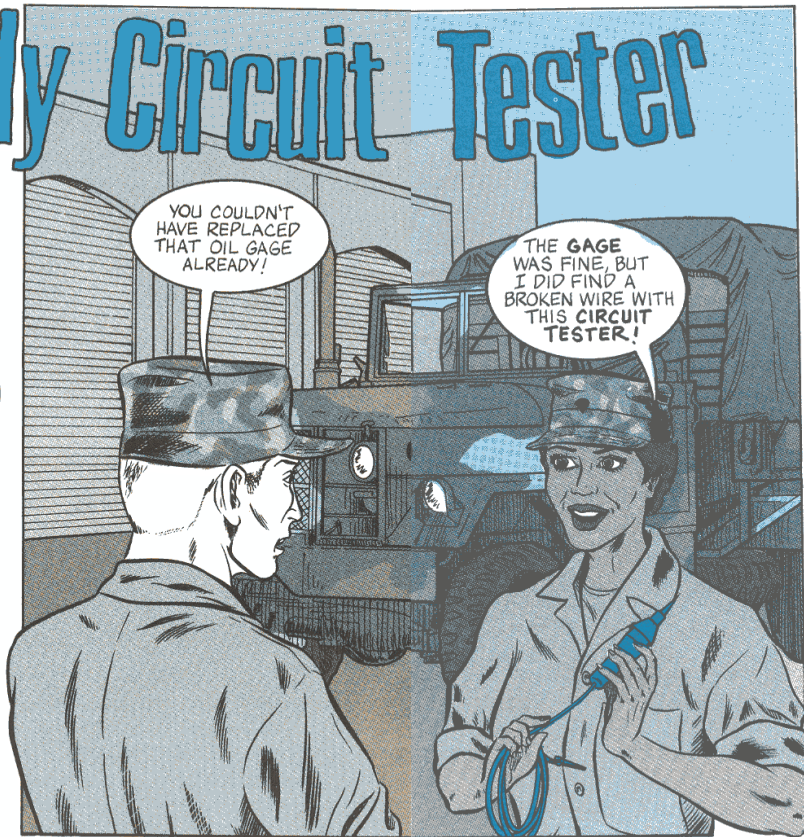
WITH IT, YOU CAN TEST THE LIVE CIRCUITS LEADING TO...

- Headlights • Taillights
- Turn signals • Blackout lights
- Inter-vehicular connector
- Dash lights • Gages • Horn
- Other electrical devices

How it Helps You

Using the test light can save you the cost and trouble of making unnecessary repairs. For instance, let's say you have an oil pressure gage that doesn't register. Before you pull out the gage and put in a new one, probe the live circuit with the test light. The electrical fault could be a bum ground at the gage or a problem somewhere else in the circuit.

The test light is a quick way to locate that problem so you won't waste time and labor replacing something that's not broken.



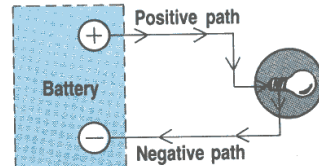
YOU COULDN'T HAVE REPLACED THAT OIL GAGE ALREADY!

THE GAGE WAS FINE, BUT I DID FIND A BROKEN WIRE WITH THIS CIRCUIT TESTER!

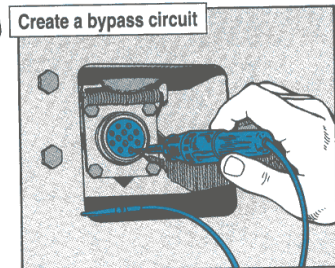
How it Works

It's basic electricity. It takes 2 paths to complete a circuit—a positive and a negative. Electricity flows from the battery to an electrical device—like a clearance light—on one path. It flows back to the battery on the other path.

negative terminal is connected directly to the chassis. Electrical devices are connected to the battery's negative terminal through the chassis. Those devices are either mounted right on the chassis or attached to it by a negative wire, also called a ground wire. The metal chassis, then, serves as the ground. It completes the electrical circuit.



When you attach the test light's alligator clip to the chassis and put the probe tip on the hot wire, you're actually creating a bypass circuit. This new circuit runs through the hot wire, the probe, the lead, and the alligator clip back to the chassis ground. If there is voltage at the point where the probe touches the hot wire, the test light will light up.



One of the paths is made up of wires that connect the battery's positive terminal to each electrical device. They're known as positive wires, or hot wires.

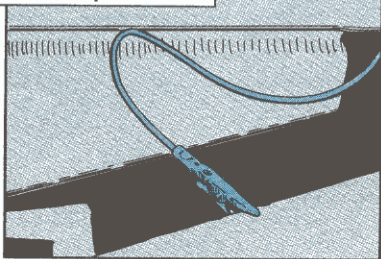
The other path is the vehicle's chassis or instrument panel. The battery's

How to Test and Use the Test Light

Before using the test light, make sure it works. Attach the alligator clip to the chassis and touch the test light's probe tip to the positive terminal of the vehicle's battery. If the test light comes on, then the tester is ready for use.

Attach the alligator clip to the chassis or ground wire. Wiggle the clip so that the teeth get through paint, dirt, or grease to bare metal. That way you'll get a good ground.

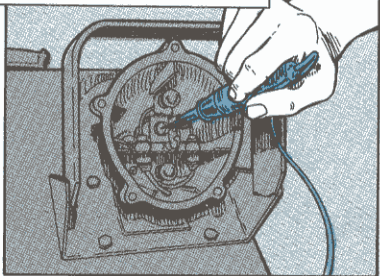
Attach clip to chassis



Pull the hot wire off the terminal of a switch, light bulb or gage.

Put the test light's probe tip in the wire's connector. This lets you check to the end of the live circuit.

Probe the end of live circuit



If the test light lights up, there's voltage at the end of the hot wire.

That means the problem is the ground. Look for a loose or broken ground wire or a dirty, corroded connection.

If the ground checks out OK, the fault is in the electrical device—switch, light bulb, or gage. Replace it.



Test Light...

Wrap It Up!



In football you get penalized for piling on. The same thing happens when you pile tools on your test light, NSN 6625-01-260-2387, in the general mechanic's tool kit.

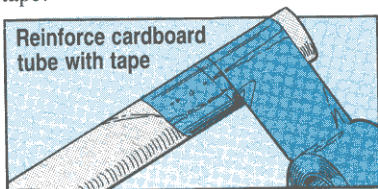
Some mechanics casually toss the test light in the bottom of their toolbox. Then they pile hammers, wrenches, vise grips and more on top.

That breaks the light's plastic handle or the lamp. They're stuck with a busted tool and no way to test circuits. How's that for a penalty?

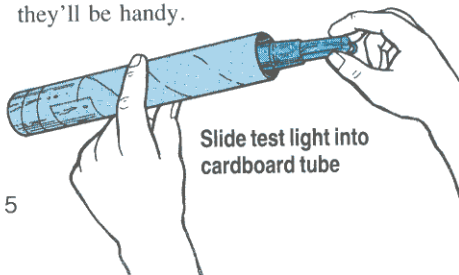
Fortunately, SFC Ricardo Rivera of Ft Stewart, GA, has found a way to protect the test light with a homemade sheath of cardboard and tape. Here's how he made it:

Use a cardboard tube, like the kind found in rolls of paper towels or toilet paper. Wrap duct tape around the tube

to reinforce it. Seal off one end with tape.



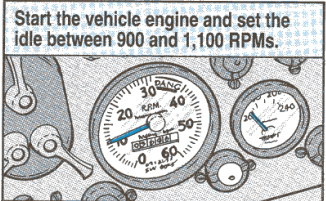
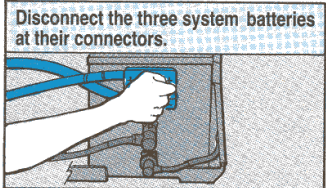
When you're ready to store the light, slide it inside the sheath, then stow the test light with its sheath in the TOP tray of the toolbox. You might even store a couple of lamps, NSN 6240-00-266-9940, in there, too. That way they'll be handy.



Regulating Regulator Right

Too much voltage to a battery shortens its life. Not enough makes for a weak battery. That's why Vulcan repairmen need to carefully follow this procedure for adjusting the M163's vehicle voltage regulator:

With the cannon pointing to the right rear corner, turn the gun and system power switches off.

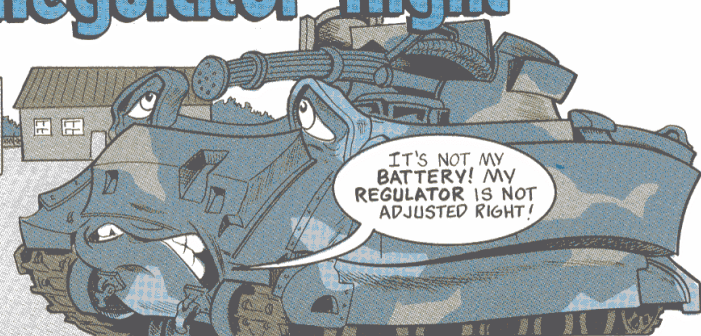


Make sure the IR and master switches are off.

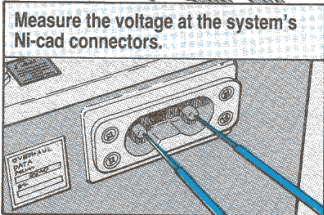
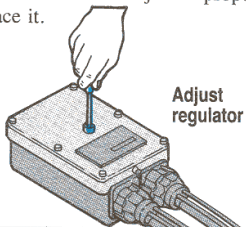
Turn the headlights on and all other systems off. The regulator must be adjusted with all systems off, except the lights, or the Ni-cads will overheat.

Let the engine run for 20 minutes.

Adjust the regulator according to the average temperature between 0900 and 1100 hours. If it's below 80° F, set the regulator to $28.7 \pm .2\text{VDC}$; above 80° F, set it at $27.5 \pm .2\text{VDC}$.



Use insulated cross-tip screw driver #1 to adjust the voltage. Never force the adjusting screw past its stop. If the regulator can't be adjusted properly, replace it.

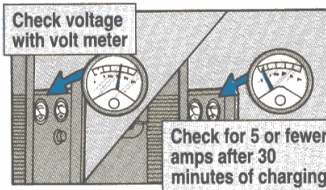


Once you have the correct voltage, turn off the vehicle engine. That prevents arcing when you reconnect the Ni-cads.

After the three Ni-cads are reconnected, turn the master switch on and run the vehicle engine between 900 and 1,100 RPMs.

Monitor the voltage at the distribution box volt meter. It will probably be less than what you set the voltage regulator for. This is normal and is caused by the different levels of charge in the three mount batteries.

Never let the voltage exceed 29 VDC during charging. Higher voltages damage the batteries.

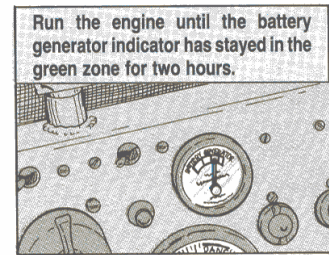


The sides of the Ni-cads should remain cool during charging (unless the battery heaters are running). If a battery becomes warm during the first 20 minutes, turn it in.

The amp meter should read five amps or less after 30 minutes of charging. If you're going to inspect the batteries, wait two hours with no load on the batteries before you remove their covers. That lets them stabilize.

After the Ni-cads are fully charged, the system lead acid batteries may be charged.

Turn the system master power switch to ON.



If there is a dramatic change in temperature from above or below 80° F, readjust the voltage regulator to keep batteries at their peak.

Purging Kit...

Make Kit Fit

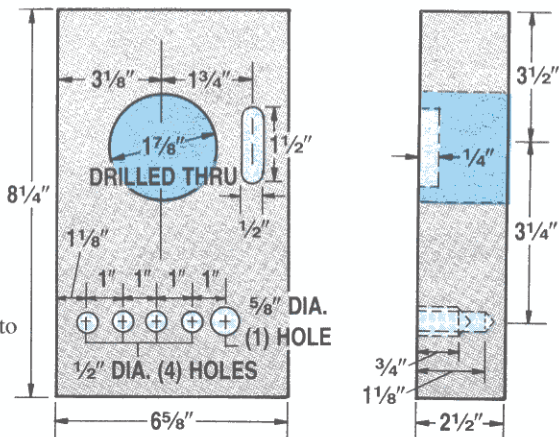
The purging kit, NSN 4931-00-065-1110, used on fire control instruments doesn't fit securely in its toolbox, NSN 5140-00-498-8772. Make the kit fit like this:

Cut a block of wood $8\frac{1}{4}$ -in long x $6\frac{5}{8}$ -in wide x $2\frac{1}{2}$ -in thick.

Drill seven holes like the diagram shows. Smooth the block with fine grain sandpaper.

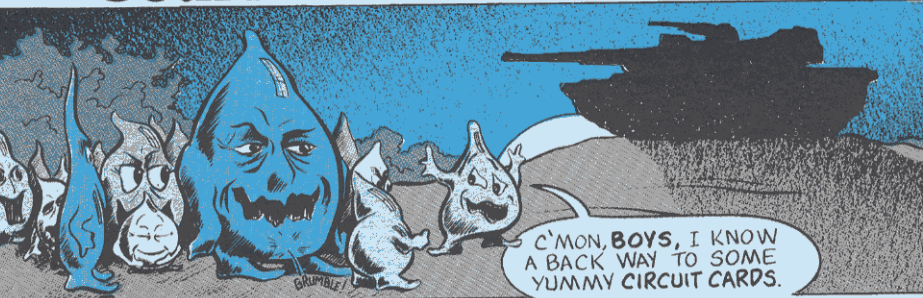
Remove the tray from the toolbox.

Use any kind of glue to hold the block in place.



PLACE THE PURGING KIT COMPONENTS IN THE CUTOUTS. THE KIT WILL NOW FIT SECURELY IN THE TOOLBOX.

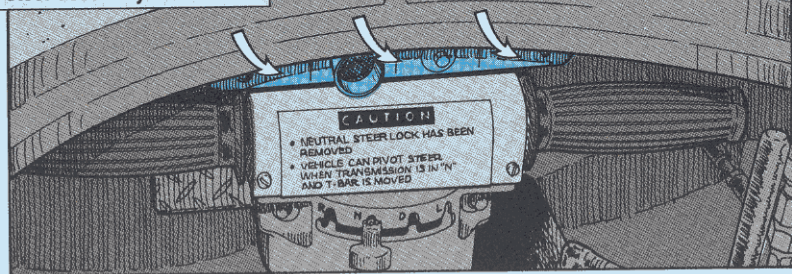
Seal Driver's Alert Panel



A little adhesive sealant will cover up two holes in the driver's alert indicator panel and prevent moisture damage to the circuit card inside.

The holes are on the top side of the panel, so you'll have to remove the panel to get to them. Instructions for removal are found on Pages 9-59 and 9-60 of

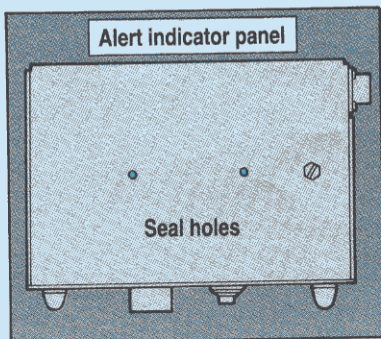
**Drivers alert panel is above
steer assembly**



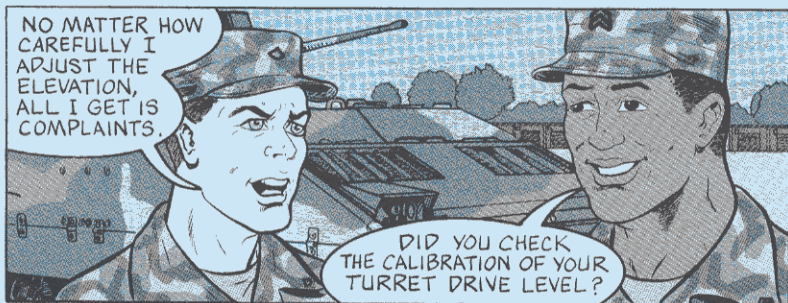
TM 9-2350-255-20-1-4 (for M1 and IPM1 models) and Pages 9-58 and 9-59 of TM 9-2350-264-20-1-4 (for the M1A1 model).

Put the access cover on the housing and put the unit on a bench with the cover side down. Clean the two holes with solvent and a clean rag. Allow the metal to dry completely.

Fill the holes with sealant, NSN 8040-00-938-1535. Reinstall the alert panel.



Keep Level on the Level



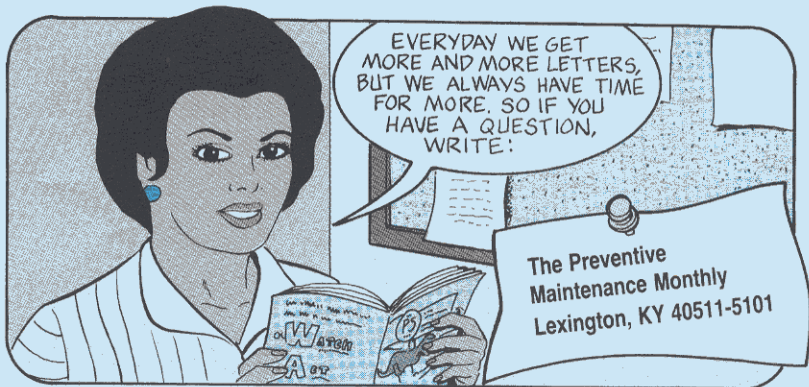
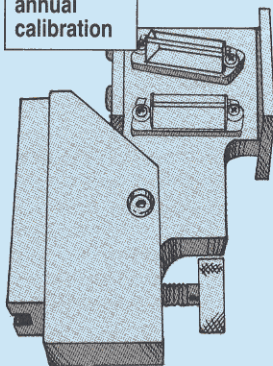
Hey, mechanics! Do you get complaints about the aim on the Bradley's 25mm gun, no matter how careful you are when performing the semi-annual elevation adjustment?

It could be that the problem's caused by a faulty turret drive level.

The headshed says very few levels are being turned in for calibration like it says on Page I-185 of TB 43-180, Calibration and Repair Requirements for the Maintenance of Army Materiel.

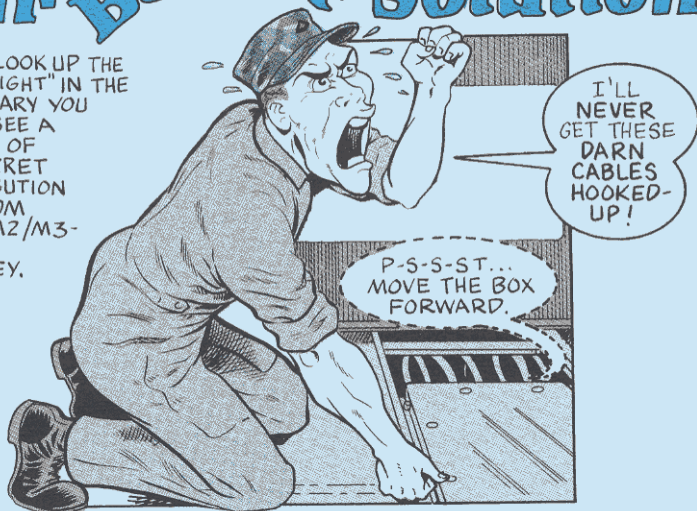
You must have the level calibrated every 360 days by your local calibration people to ensure accurate adjustments. Do it more often if the level is dropped or banged around.

Level needs annual calibration



Pin-Bender Solution

IF YOU LOOK UP THE WORD "TIGHT" IN THE DICTIONARY YOU MIGHT SEE A PICTURE OF THE TURRET DISTRIBUTION BOX FROM YOUR M2/M3-SERIES BRADLEY.

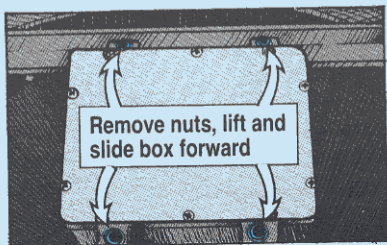


There's barely enough space to get your hand between the box and floor wall, let alone enough room to attach the connector plugs properly. Yet the plugs must be lined up straight and pushed onto the receptacles carefully, or you'll end up with bent pins.

And with seven cables on each end of the box, chances are at least one connector will come away damaged.

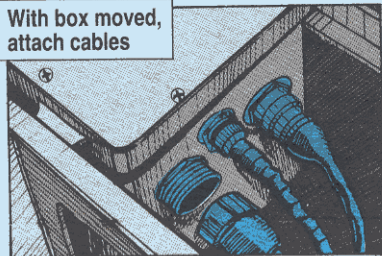
Here's a better way:

- Remove the four nuts and washers that hold the distribution box in place.



- Carefully lift the box off the four mounts and slide it forward. Now you've got space to hook up the connectors.

With box moved, attach cables



- Slide the box all the way back and attach the last seven connectors the same way.
- Replace the distribution box on the mounts and snug it down with the nuts and washers.

Use the same process for disconnecting the connector plugs.

Sticky Linkages Cause Problems

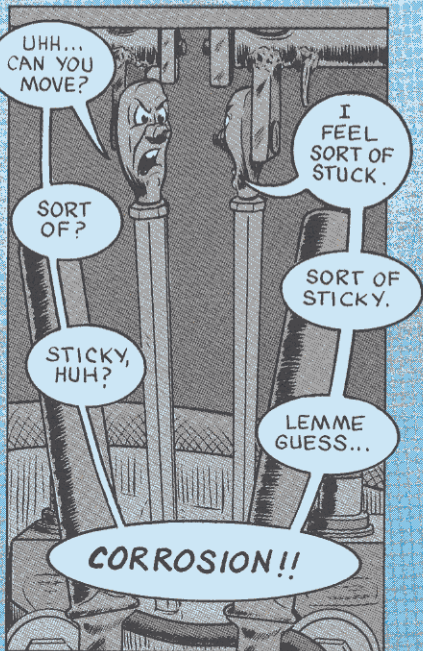
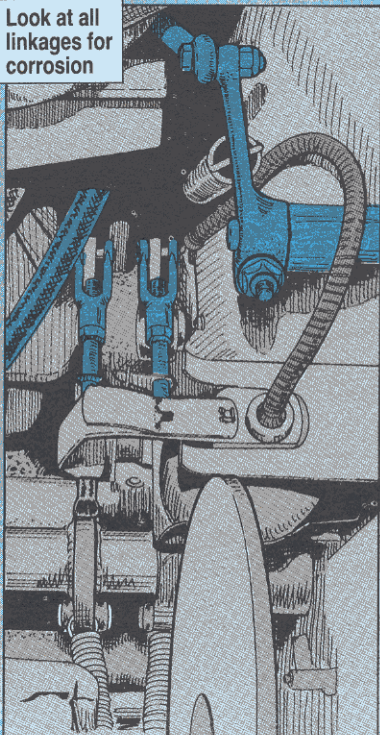
Corrosion is bad news in any form, but the damage it causes may be most harmful in control linkages (pivot steer, fuel, gearshift, etc.).

That's because you don't want to lose control of any of these systems.

So it's in your best interest to check these linkages before operation, especially if your vehicle has been idle for a long time or has been exposed to harsh conditions.

Move the linkages through their ranges, paying close attention to smoothness of operation. If any of them stick or are hard to move, check

Look at all linkages for corrosion



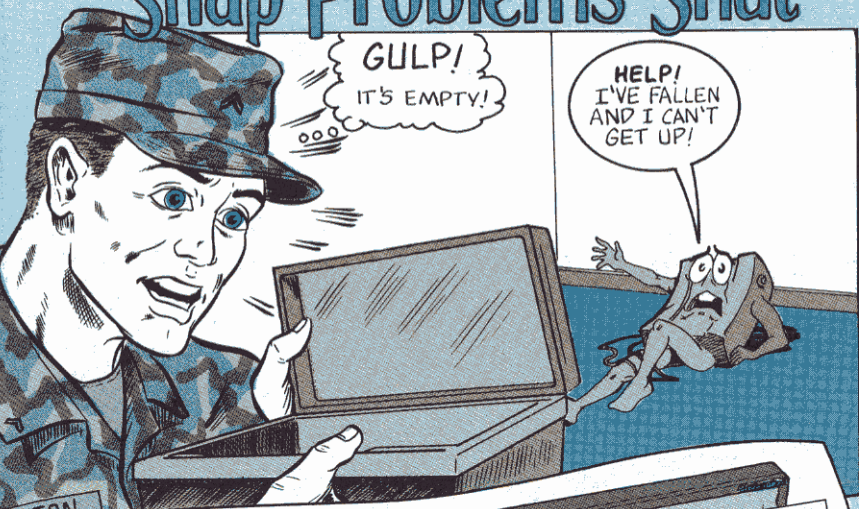
for corrosion at the rod ends, bell cranks, cross shafts and handle levers.

Report poor operation (and corrosion, if you find any) to your mechanics. They'll clean up the corrosion, replace any damaged parts, then spray or brush corrosion preventive lubricant on bearings and moving parts.

This corrosion-killing lube is available with these NSNs:

NSN 9150-01-	Size
053-6688	1-gal plastic bottle
079-6124	4-oz bottle
054-6453	1-pt trigger sprayer

Snap Problems Shut

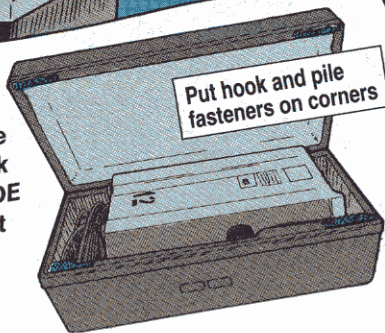


Dear Editor,

The cases that our hand-held Test, Measurement, Diagnostic Equipment (TMDE) come in have fragile plastic snaps. Most break off within days. As a result, TMDE can suddenly take a tumble out of its case and suffer serious damage.

Instead of wasting time and money ordering new cases, we glue 3-in strips of hook and pile fasteners on the case corners, top and bottom. The hook and pile keeps the cases shut. Self-Service Supply Centers usually have it or you can order some with NSN 5325-00-567-0258.

SGT Kevin Smith
Ft Bliss, TX



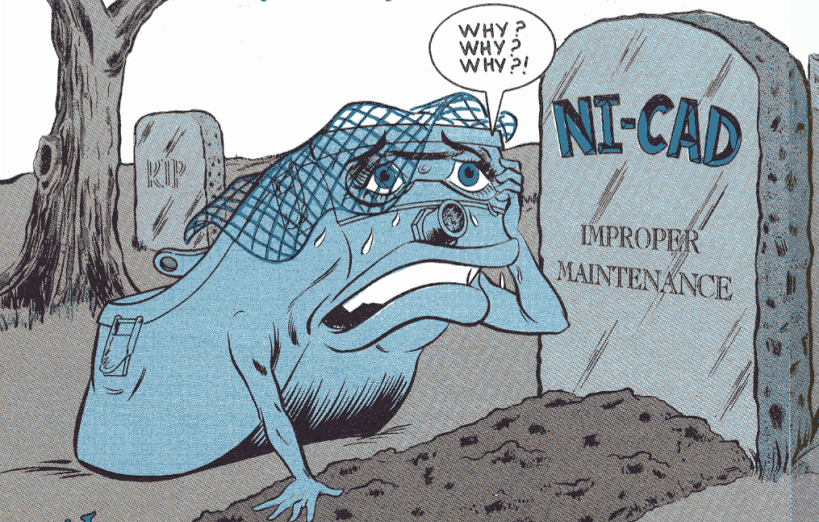
FROM THE DESK OF THE Editor



You've stuck on a good solution to bad cases. But, this will only work with small, hand-held TMDE like multimeters. Don't try it with the big stuff.

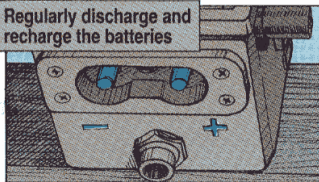
Treat Nickel-Cadmium

Batteries Right



Nickel-cadmium batteries power many pieces of Test, Measurement and Diagnostic Equipment (TMDE). The combination works well in the AN/USM-485 and similar equipment as long as you TMDE users discharge and recharge the batteries regularly.

Regularly discharge and recharge the batteries



The nature of TMDE, however, is that you use it today and maybe not again until next week, or next month.

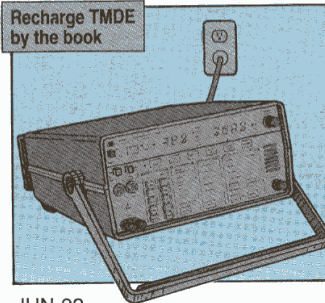
Unfortunately, the discharging and recharging of those nickel-cadmium batteries can't be on that kind of random basis.

Pay close attention to the battery maintenance section in your TMDE's TMs.

Doing maintenance by the book—the AN/USM-485 transmission test set for example—keeps your batteries useful for about 100 cycles. You leave the test set on until it no longer functions.

Then you switch the set to STNDBY and plug it into an electrical outlet for 16-18 hours.

Recharge TMDE by the book



Doing it any other way (or not at all) means an early death for a \$350 battery. Maybe your nickel-cadmium batteries aren't that expensive, but that's not the point. What you don't do on time costs you sooner or later.

To keep from paying, set up a DD Form 314 for each piece of TMDE you have that's nickel-cadmium powered. While it's true that TMDE does not require DD Forms 314 for services, it's also true that scheduling battery discharging/recharging on the form will make it easy to keep up with the job.

PUBS

This is a selected list of recent pubs of interest to organizational maintenance personnel. This list was made from a computer printout produced by the Adjutant General's Office.

TM 1-4920-452-13&P Jan Shop set, sheet metal, airmobile
TM 5-3805-260-24 Mar 91 Scraper, tractor
TM 5-3810-305-24 Dec 91 LRT-110 crane (SCAMP)
TM 5-3825-221-24P Mar Distributor, water, tank; truck mounted
TM 5-3895-275-24P Jan Model SA-35 paving machine
TM 5-4930-230-23P Jan Tank and pump unit
TM 9-1010-230-23&P Dec 91 MK19 MOD 3 machine gun
TM 9-1315-252-12&P Feb 81MM cartridge
TM 9-1425-602-12-2 Dec 91 Fire platoon software user guide, Vol 2 (Patriot missile system)
TM 9-1425-602-12-3 Dec 91 On-line maintenance information, Vol 3 (Patriot missile system)
TM 9-1425-602-12-4 Dec 91 Off-line maintenance information, Vol 4 (Patriot missile system)
TM 9-2320-361-20 Oct 91 M44A2 series trucks
TM 9-2330-203-14&P Jan M197, M197A1, M198 and M198A1 dollies

TM 9-2330-238-24P Dec 91 Chassis, semitrailer M295A1; semitrailer, van M313; semitrailer, van M447, M447C; semitrailer, van M749; semitrailer, van M750

TM 9-2350-238-20-2 Mar M578 recovery vehicle

TM 9-4120-398-14 Dec 91 Model AH-54 air conditioner, 54,000 BTU

TM 9-4120-399-24P Jan Model 3863 air conditioner, 36,000 BTU

TM 9-6115-654-24P Mar Generator set, model CTMGSA-5

TM 9-6115-655-24P Mar Generator set, model CTMGSA-15 (LT) and CTMGSA-15 (HV)

TM 9-6115-656-24P Mar Generator set, model CTMGSA-30

TM 10-3930-615-24P Jan Truck, forklift, electric

TM 10-3930-628-24P Mar Model MHE-219 forklift and model FE-20-24EE

TM 10-4130-239-14 Nov 91 Small mobile water chiller

TM 10-4610-215-10-HR Jan 600 GPH ROWPU

TM 10-4610-2240-10-HR Mar 600 GPH ROWPU

TM 11-5841-301-12 Jan Laser detecting set AN/AVR-2

TM 11-5895-1390-23P Jan DSCS operational support system AN/FYQ-110(V)1, AN/FYQ-110(V)1X, AN/FYQ-110(V)2, AN/FYQ-110(V)2X, AN/FYQ-110(V)3 AND AN/FYQ-110(V)3X

TM 11-5895-1434-12-2 Sep 91 Satellite communications terminals AN/TSC-93B(V)1 and AN/TSC-93B(V)2

TM 11-5995-211-14&P Jan Cable assemblies, CX-13357/TRC-179(V), CX-13358/G, 59/G, 60/G, 61/G, CS-13407/G, 08/G, 09/G, 10/GRC-15,

CX-13372/GRC-215, 73/GRC-215 and CASE CY-8555/G

TM 11-7021-213-12&P Jan Digital computer, CP-1992(V)/U, CP-1993(V)/U and stand-alone display unit IP-1621(V)/U

TM 55-1520-237-23P-1 Feb UH-60A/EH-60A/UH-60L

TM 55-1520-237-23P-2 Feb UH-60A/EH-60A/UH-60L

TM 55-1520-237-23P-3 Feb UH-60A/EH-60A/UH-60L

TM 55-1520-237-23P-4 Feb UH-60A/EH-60A/UH-60L

TM 55-1520-237-23P-5 Feb UH-60A/EH-60A/UH-60L

TM 55-1520-244-PMD Apr AH-1E/F/PS

TB 1-1510-201-20-22 Jan Inspect nose wheel steering link assembly, internal self locking nut and main landing gear assemblies for improperly installed drag links U-8F, BE-65 and B80

TB 1-1520-217-20-36 Jan Vertical hinge pins, CH-54A

TB 1-1520-236-20-5 Mar Inspect engine for FOD and bypass door operating restriction, AH-1E and F series modified per MWO 55-1520-236-50-12

TB 1-1520-243-20-19 Mar Revision to the overhaul and retirement schedule of the servo cylinder assembly, AH-1 and UH-1M

TB 1-2840-241-20-8 Jan Inspect T63-A-700/T63-A-720 engine fuel pump filter bypass valve on OH-58A/C and OH-6

TB 11-5805-782-10-1 Nov 90 Tri-tac Army common user connectivity guide

TB 11-5841-283-15 Jan Warranty program, radar signal detecting set AN/APR-39(V)1

Maintenance Advisory and Safety-of-Use Messages

AMCCOM SOU MSG 92-06-Technical, M62, M543, M543A1, M543A2, M816, M936, M436A1, and M936A2 5-ton wreckers and M984 10-ton wrecker, AMSMC-MA 1214222 Mar 92.

AMCCOM Maintenance Advisory MSG 92-01-Cable test set, AMSMC-MAW121800Z Mar 92.

AMCCOM Maintenance Advisory M3G 92-06-MX-6-A and

MX-6-B generic steam cleaners, AMSMC-MA 251705Z Mar 92.

TACOM SOU MSG 92-02-Limited One-Time Inspection, M977, M978, M983, M984, M984A1, M985 and M985E1 HEMTTs, AMSTA-M 161500Z Mar 92.

TACOM SOU MSG 92-03-Emergency One-Time Inspection, M915 tractor truck, AMSTA-M 251600Z Mar 92.


TACOM SOU MSG 92-04-Limited One-Time Inspection,

M2/M3, M2A1/M3A1, and M2A2/M3A2 Bradley Fighting Vehicle System, AMSTA-M 201500Z Mar 92.

TROSCOM SOU MSG 92-04-Emergency One-Time Inspection, M80 and M85 water heaters, AMSTR-M 131400Z Mar 92.

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

ALICE in the Land of PM



A LITTLE ALICE PM MAY NOT LIGHTEN THE LOAD, BUT IT SURE WILL MAKE THE LOAD EASIER TO CARRY.

If your All Purpose Lightweight Individual Carrying Equipment (ALICE) is splattered with mud, dirt, or moisture, it needs cleaning. Equipment failure can ruin your day—so don't fail to do your PM.

Scrape off caked-on or dried-in mud with a flat stick or dull instrument.



YOU'RE OFF TO A GOOD START!

① Never use anything sharp that will damage the fabric. After scraping off the big stuff, whisk loose dirt away with a soft brush or clean cloth.



② If the equipment's dirty, dip it several times in a bucket of warm, soapy water. Use a mild detergent.



④ After washing, rinse with clean, warm water until all traces of the detergent are gone.



③ Still some stubborn stains left? Scrub them with a white or color-fast cloth and dip again. Always hand wash ALICE—never use a commercial washer. And don't use bleach, yellow soap or cleaning fluid. They'll ruin the fabric.



⑤ Dry ALICE indoors or in the shade. Never use a commercial dryer. Direct sunlight, heat or open flame will discolor the fabric.



⑥

PM Checks

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

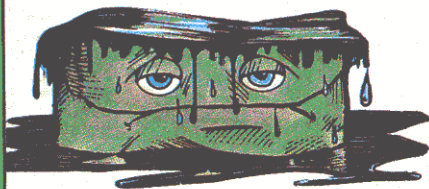


Keep dirt, leaves, rocks, gravel, and other junk out of the pockets, creases, folds and stitched areas.

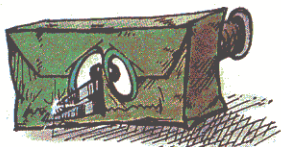


Liners Need PM, Too

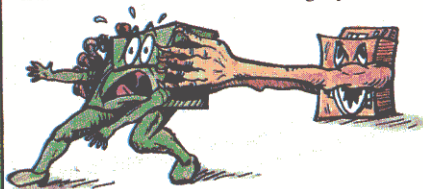
Keep liners clean and dry. Never put them away dirty or wet.



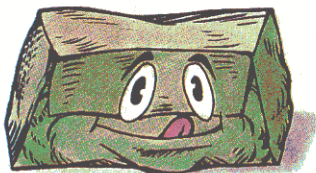
Never wrap sharp-edged or -cornered objects in the liners or liner pockets. They'll punch holes in the fabric.



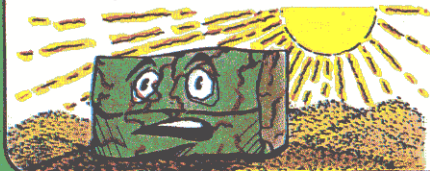
Use a damp cloth to clean liners. If more than spot cleaning is needed, hand wash in a mild detergent. Never machine wash. Rinse thoroughly.



Keep only those items that need special protection in the waterproof liners.

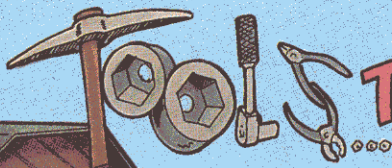


When it's drying time, keep them in the shade or indoors. Too much sunshine will make them crack . . . and so will a dryer.



Never use any kind of tape on the liners. It strips off the coating when it's removed.





There's **ONE** for Every Job!

WE DON'T TAKE **KINDLY** TO YOUR **TOOL-ABUSIN'** KIND AROUND THESE PARTS, **GREENHORN!** I'M FIXIN' TO **FILL** YOU FULL OF **LEAD!**

I'M A **GREENHORN** WHEN IT COMES TO **TOOLS, SHERIFF,** BUT I CAN **CHANGE!**

HOLD IT!

THE KID JUST NEEDS SOME **POINTERS** ON USING THE **RIGHT TOOL** FOR THE **JOB!**

OL' SMITTY SAYS THE KID'S BEEN **ABUSIN' TOOLS** EVER SINCE HE **MOSEYED** IN TO TOWN.

I THINK WE CAN **STRAIGHTEN** THIS OUT IF WE JUST GO **BACK TO THE BASICS.** LET'S START WITH **SCREWDRIVERS.**

Screwdrivers

The first step in choosing a screwdriver is to decide on the right tip. Tips are made to fit certain screws. The wrong tip will damage the head of the screw and won't do the job.

Here are the tips and the screws they fit:



Phillips



Reed & Prince



Poizidriv



Torx



Slab



Hex Socket



Torque



Clutch Head



Clutch Head



Scrulox

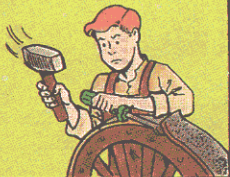


Bristo

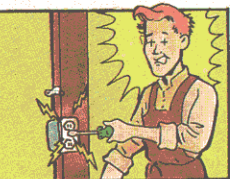


Flat Tip

NEVER USE A SCREWDRIVER AS A CHISEL, PUNCH, PRYBAR OR SCRAPER...



NEVER USE A SCREWDRIVER NEAR A LIVE WIRE OR ELECTRICAL TESTS...



NEVER USE SCREWDRIVERS WITH WORN OR BROKEN HANDLES...



Here are the most common errors made with screwdrivers:



A rounded or worn tip rides out of the slot



A chisel-ground tip rides out of the slot



A tip that's too narrow bends or breaks



A tip that's too wide tears up the wood



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

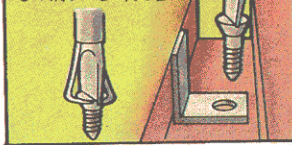


The right tip fits snug in the slot

NEVER DRIVE SCREWS INTO MATERIAL WITHOUT MAKING A PILOT HOLE...



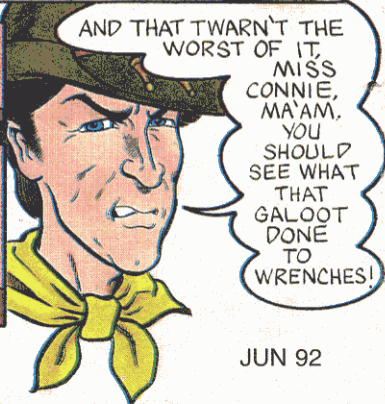
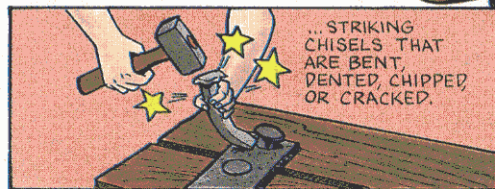
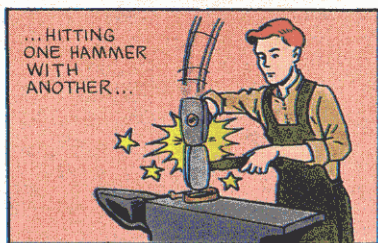
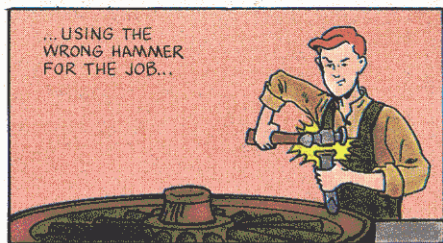
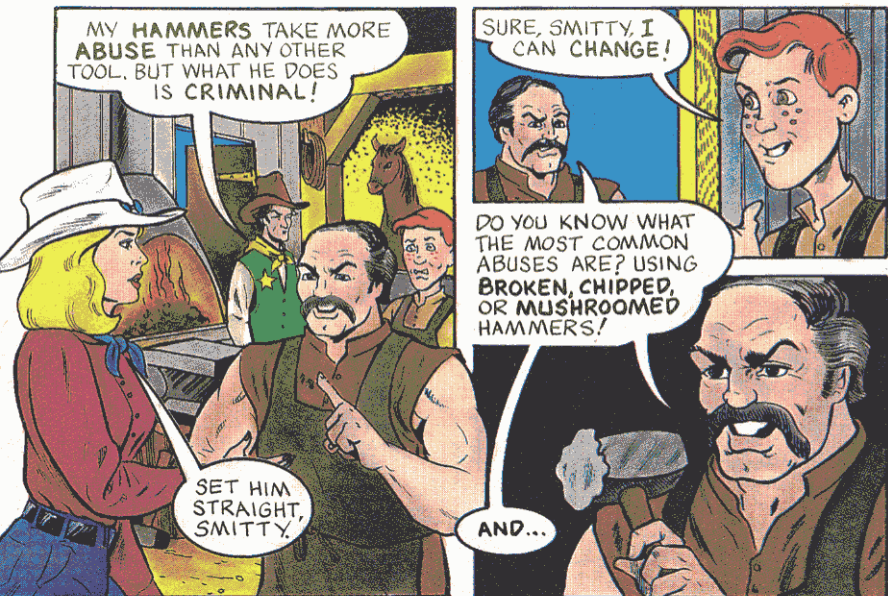
NEVER START SCREWS IN HARD TO REACH PLACES WITHOUT A STARTING TOOL...



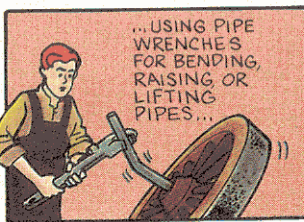
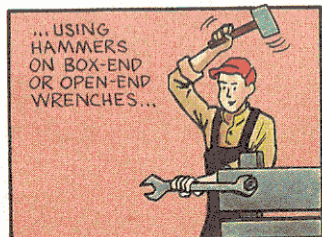
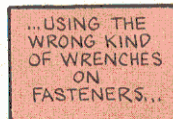
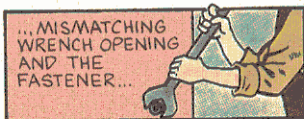
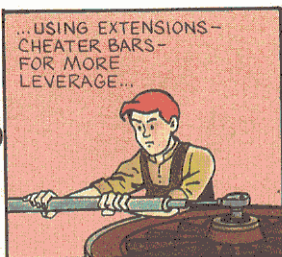
NEVER USE PLIERS ON SCREWDRIVER HANDLES FOR MORE HOLDING POWER.



Hammers



Wrenches



... USING THE WRONG KIND OF SOCKETS WITH WRENCHES... LIKE USING HAND SOCKETS ON POWER DRIVE OR IMPACT WRENCHES...

HAND

POWER

IMPACT



THIN-WALLED REGULAR HAND SOCKETS CAN'T TAKE THE PRESSURE THAT IMPACT WRENCHES DISH OUT... THEY CRACK, TWIST AND BREAK.



THICK-WALLED HARDENED IMPACT SOCKETS CAN TAKE THE PRESSURE - USE EM!

... USING ADJUSTABLE OR OPEN END WRENCHES TO BREAK TORQUE OR LOOSEN NUTS.

OVER-TORQUING

UNDER-TORQUING



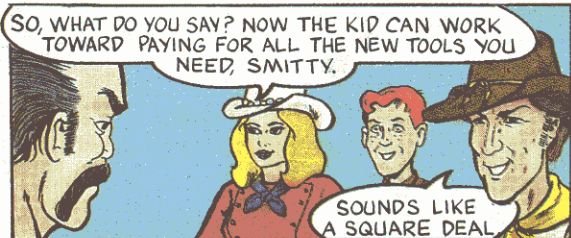
USE TOOLS RIGHT AND THEY'LL DO THE JOB FOR YEARS!

Wood Handled Tools



IF THE TOOL IS KEPT INSIDE, RUB THE HANDLE DOWN WITH LINSEED OIL. THIS PREVENTS DRYING, CRACKING, AND SPLINTERING. A GALLON OF LINSEED OIL COMES WITH NSN 8010-00-152-3245.

READ TM 9-243 FOR THE COMPLETE INFO ON HAND TOOLS.

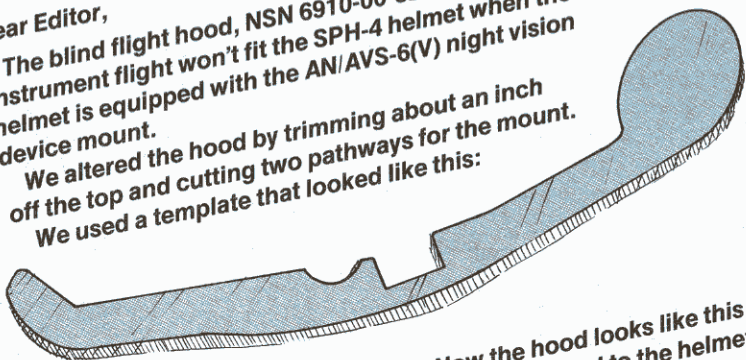


Make the Flight Hood Fit

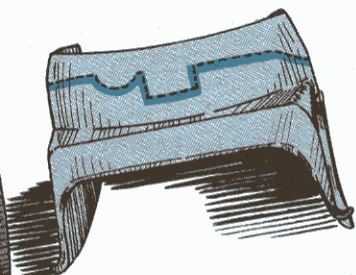
Dear Editor,

The blind flight hood, NSN 6910-00-525-8199, used for instrument flight won't fit the SPH-4 helmet when the helmet is equipped with the AN/AVS-6(V) night vision device mount.

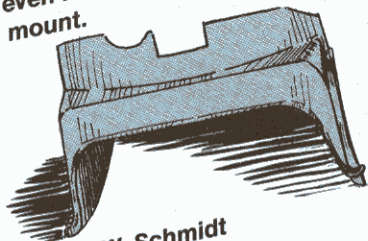
We altered the hood by trimming about an inch off the top and cutting two pathways for the mount. We used a template that looked like this:



Then we cut the hood like this:



Now the hood looks like this and can be fitted to the helmet even with the night vision device mount.



Douglas W. Schmidt
Lafayette, LA

**FROM THE DESK
OF THE Editor**



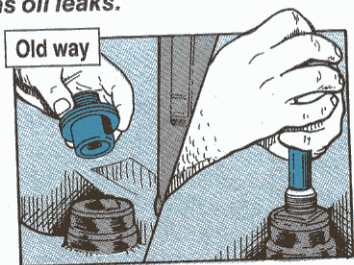
Even a blind man could see that this is a good idea!

Huey Transmission Tool

Dear Editor,

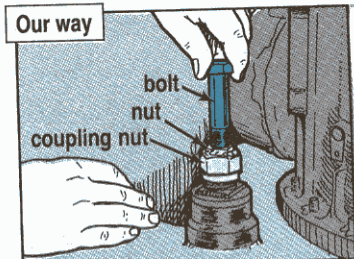
The oil filler neck on the main support case of the Huey transmission is being damaged when mechanics install the filler adapter. Metal particles are shaved from inside the neck and fall into, and contaminate, the transmission oil. In addition, those shavings make a good seal impossible. That means oil leaks.

The damage is caused by the difficulty in seating the spring-loaded adapter. It requires a drift to be inserted into the center of the adapter to depress the spring. At the same time, the adapter must be turned and locked into position on the filler neck.



We solved the problem with a coupling nut, a hex nut and a bolt. Here's how:

1. Braze the hex nut to the top of the coupling nut.
2. Attach the coupling nut to the adapter.
3. Screw in the bolt to depress the spring in the adapter.
4. Lock the adapter in place.
5. Remove the coupling nut and bolt.



Carlos Torres
George Raabe
CCAD, TX

FROM THE DESK
OF THE Editor

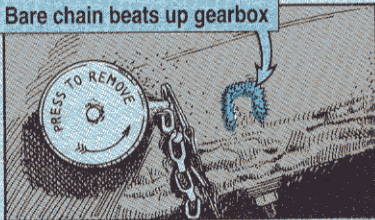
Good work, fellas!
You've made a job
easier and safer, and
prevented damage, too!

Cover the Chain

That innocent looking little chain that links the lube fill cap to the retaining pin on the 90-degree and 42-degree gearboxes is the culprit in a whole lot of damage.

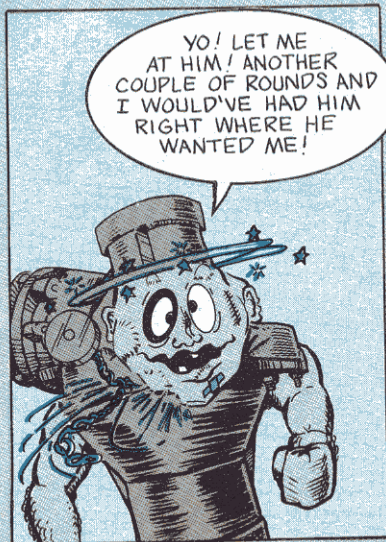
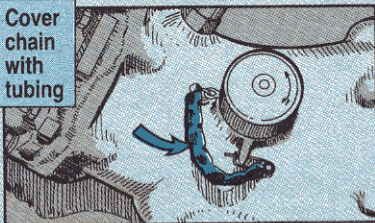
The chain beats against the gearbox and takes off the paint. That bare, beaten spot gives corrosion a foothold.

Bare chain beats up gearbox



Solve the problem by sleeving the chain with shrink tubing. NSN 5970-00-812-2967 brings a foot of 1/2-in tubing; NSN 5970-01-169-1723 brings a foot of 3/4-in tubing.

Cover chain with tubing



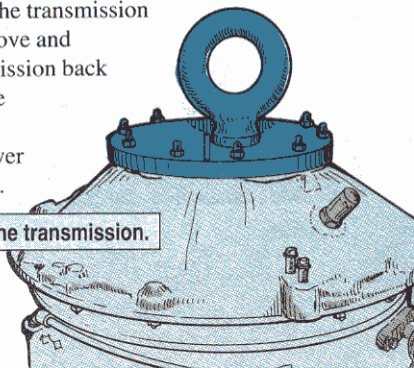
UH-1, AH-1 Transmissions...

Don't Hog the Covers!

The lifting eye you use to remove the transmission has a second job. It's also a cover that keeps moisture and dirt out of the transmission during shipment. But some mechanics remove and keep that cover before they send the transmission back for repair. Then corrosion turns a repairable transmission into junk.

Smart mechanics leave the lifting eye cover on when they ship a transmission for repair.

You be smart, too. Leave the cover on the transmission.

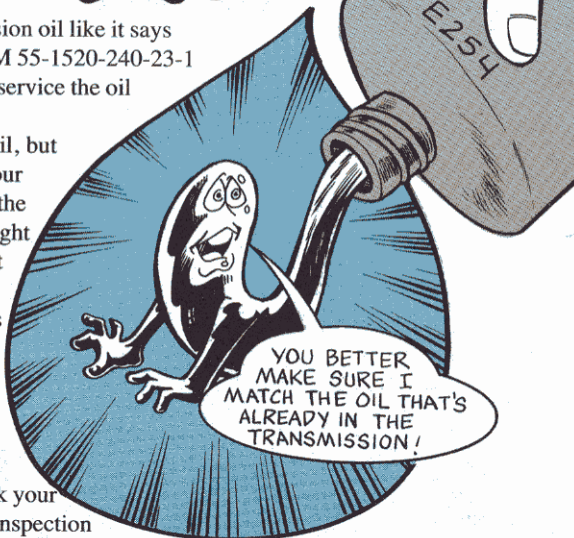




Topping off your transmission oil like it says in Step 21 of Task 1-54 in TM 55-1520-240-23-1 could force you to drain and service the oil system.

Step 21 says to add E254 oil, but that might not be the oil in your transmission. Depending on the ambient temperature, you might have E253 or E254 oil, like it says in the Caution on Page 1-185. Mixing the oils means the system has to be drained and serviced.

So make sure before you add oil to your transmission that you add the same type of oil that's already there. Check your DA Form 2408-13, Aircraft Inspection and Maintenance Records, to find out what oil is in your transmission.



Aviation Messages

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

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

OH-58-92-ASAM-11, Info, OH-58A/C/D, improper installation of GPS, 311900Z Mar 92.

UH-1-92-ASAM-07, Info, UH-1V/H, reporting of serial numbers of aircraft sent to Operation Desert Storm, 022300Z Apr 92.

Gen-92-ASAM-05, Info, UH-1/AH-1/OV-1/OH-58/H-6/CH-47/UH-60/AH-64, CCAD Hotline and Engine Service Center for T53/55/63/700

engines, 102130Z Mar 92.

Gen-92-ASAM-06, Info, all aircraft, NVG dual visor on avn helmet, 301400Z Mar 93.

Gen-92-ASAM-07, Info, all aircraft, use of discrepant lots of Svn-Tech grease, 022030Z Apr 92.

OV-1-92-01, SOF, Oper, OV-1D and RV-1D, flight limits for certain airframes due to overstress

conditions, 102200Z Mar 92.

AH-64-92-02, SOF, Tech, AH-64A, engine support bracket, 102300Z Mar 92.

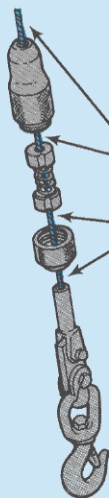
OH-58-92-03, SOF, Tech, OH-58A/C & H-6, inspect compressor cases, 302000Z Mar 92.

OH-6-92-02, SOF, Tech, OH-58A/C & H-6, inspect compressor cases, 302000Z Mar 92.

Chinook Cable Care

Dear Windy,
When you inspect the Chinook winch cable while doing Task 14-2 in TM 55-1520-240-23-10, Para 4a says that there should be no more than 1 broken wire in a 60-in length of cable. But when you do Task 14-12, Para 5 says, no more than 6 broken wires in a 12-in length of cable. Which is right?

SSG C.D.W.



Dear Sergeant C.D.W.,
Ignore the info in TM 55-1520-240-23-10. Follow the guidelines on Pages 3-155 through 3-160 in TM 55-1500-204-2511, General Aircraft Maintenance Manual.
Future changes to your Chinook TMs will say just that.

Windy

WHAT DO YOU THINK?

I THINK THAT SAYS IT ALL, WINDY!

The Perfect FOD Fighter



The perfect FOD fighter has:

The nose of a bloodhound... always pointed to the ground to sniff out objects that can damage aircraft.

The eyes of a hawk... always alert and moving to spot even the smallest objects.

The wisdom of an owl... always thinking, could that object lead to FOD?

The tenacity of a bulldog... always willing to put the bite on FOD and not let go.

The perfect FOD fighter does:

✓ Clean his work area at least once every day.

✓ Pick up all safety wire, paper, rags and anything in, on and around the bird he's working on, inspecting or flying.

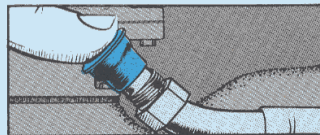
✓ Turn in all special tools when he's done with them.



FOD Fighter

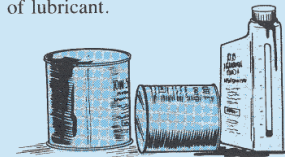
✓ Inventory his tools and tool boxes after maintenance and at the end of each day.

✓ Put caps on all disconnected oil and fuel lines.



✓ Look over the area and pick up all loose objects, such as trash and grass.

✓ Get rid of all empty and partial cans of lubricant.



✓ Look for metal shavings around electrical connectors, grass or straw in inlet screws, and misplaced or forgotten hand tools.

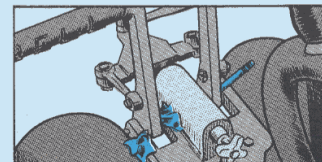
✓ Use a flashlight to check dark and hidden places.



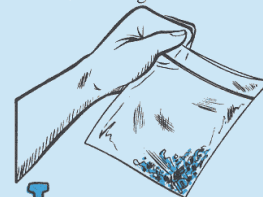
✓ Make sure tiedowns and helmet bags are properly stowed and secured.

✓ Install protective covers—such as engine and pitot covers—after the last mission of each day.

✓ Make sure the cockpit area is free of loose objects like food wrappers and containers, pens and pencils that can slip down between components or controls.



✓ Carry a 4 × 4 ziplock bag, NSN 8150-00-837-7753, in his pocket and, as he finds small foreign objects, puts them in the bag.



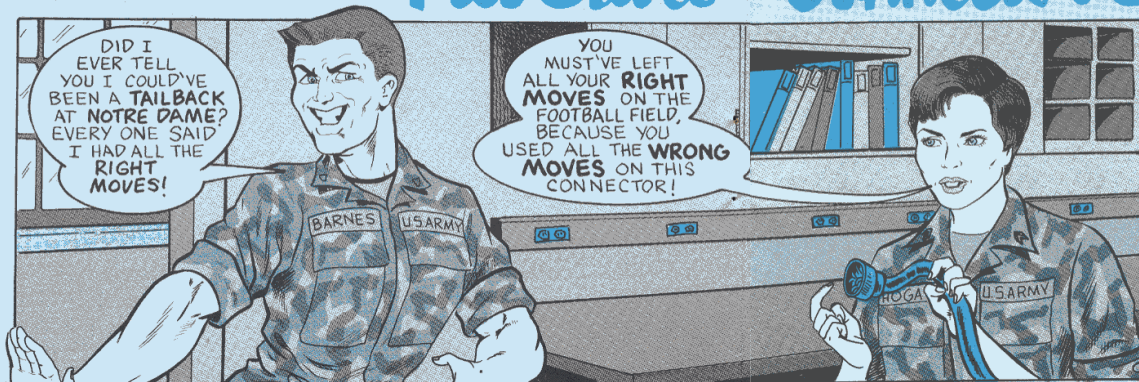
The perfect FOD fighter reads:

Chapter 3 of AR 385-95, Army Aviation Accident Prevention, covers the prevention of FOD and includes a sample FOD prevention SOP in Appendix D.

The perfect FOD fighter calls:

The Aviation Mishap Prevention Office at the Army Safety Center, Ft Rucker, AL, DSN 558-4198 or Commercial 205-598-4198, if he has further FOD questions.

Fill Cable Connector Guide



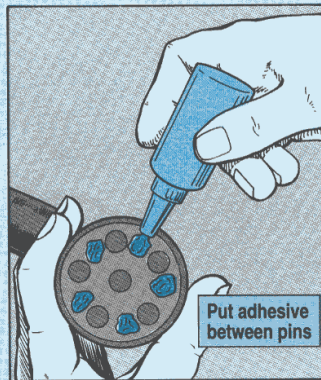
Making the hookup between the fill cable and the SINGGARS Electronic Counter-Countermeasures (ECCM) MX-10579/VRC or MX-18290/VRC fill device or the RT-1439 receiver-transmitter's W4 cable takes the right moves. If the connections aren't lined up right, the metal guides in the cable connector get broken. That means you have to replace the entire connector. Make the right move every time by putting a nylon insert, NSN 5935-01-253-3262, in the female audio connector. With the insert installed, the guide has to fit exactly or the connector won't turn.

Here's how to install the insert:

- Make sure the plastic at the base of the contact pins is clean. If needed, clean it with a cotton swab, NSN 6515-01-234-6838, and isopropyl alcohol, NSN 6810-00-753-4993.

- Make sure the plastic is dry. Put on safety glasses. Place a drop of adhesive, NSN 8040-00-142-9193, between each contact pin. Be extra careful not to get the adhesive on the pins.

Use this adhesive only in a well ventilated area.



- Pick up the nylon insert with needle-nose pliers—not your fingers—and place it over the pins. Be sure the tops of the pins are showing through the holes in the insert.

- Hold the insert in place for about 15 seconds.

Let the adhesive cure two hours before mating the connector.

To make sure the modified connector is working, perform this test:

Testing MX-10579/VRC or MX-18290/VRC ECCM Fill Device

- Clear all data from the modified ECCM fill device.
- Install another ECCM device that's loaded on the modified fill device's P1 connector and load modified ECCM fill device.

If the modified ECCM fill device accepts the load, it's good to go. If it doesn't, clean the pins with acetone, NSN 6810-01-209-0693*, and retest.

Testing W4 Cable

Set the AN/PSM-45 multimeter on the lowest resistance. Check resistance from connector pin to connector pin like this: A to A, B to B, C to C, D to D, E to E and F to F. If resistance is less than 100 ohms, the cable's good to go. If resistance is more than 100 ohms, clean the pins with acetone and retest.

*Local purchase item.

PM Controls

Face it! A power failure with your AN/GRA-39 radio set control group means you're not only out of sight, but out of mind, too.

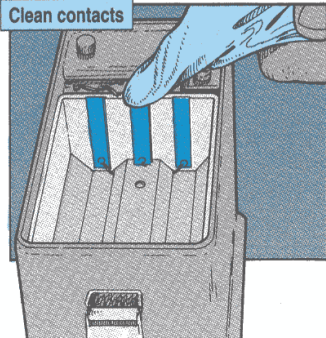
PM's the way to keep you in control of your commo gear. And the first place to start is in the battery box.

Eyeball the six BA-3030/U batteries in the C-2328 remote and C-2329 local control units. Remove 'em when the set's idle or they'll leak and corrode your set.

Never try to stretch battery life. If even one battery's swelling, bulging or leaking, replace 'em all. They're only good for about 144 hours of operation in the local unit and 48 hours of operation in the remote unit. So keep six extra batteries on hand for each unit. Get 'em with NSN 6135-00-930-0030.

Next, take a look at the electrical contacts to make sure they're clean. If they're corroded or have a dull finish, shine 'em up with cleaner, NSN 6850-00-105-3084, and polishing cloth, NSN 7920-00-985-6849.

Clean contacts



44



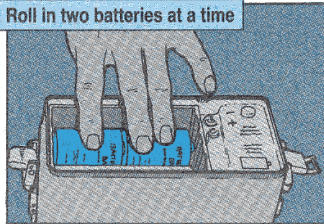
JUN 92

Control Units

Get your unit repairman to glue down all loose contacts. Any slipping or sliding will mess up contact with the batteries.

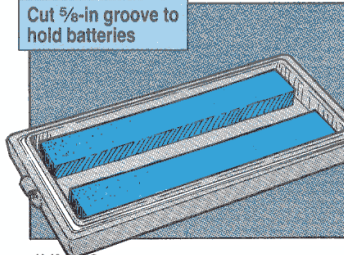
Install the batteries two at a time using the proper polarity. The case tells you how. Just make sure the positive end of each battery touches or points toward a contact strip. They'll fit better if you roll them into place against the contact.

Roll in two batteries at a time



Look at the inside of the battery cover. If the rubber pad is missing, get your support to install a new one. Cut a 5/8-in wide notch down the center of the pad. That'll help hold the batteries in place.

Cut 5/8-in groove to hold batteries

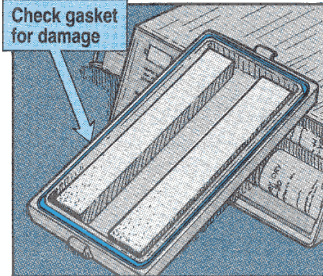


JUN 92

Batteries still moving around? Snug 'em up by slipping a piece of cardboard between the battery compartment and control case walls alongside the batteries.

Eyeball the gasket in the battery cover. If it's cracked or damaged, get support to replace it right away. A tight seal between the battery box and cover is a must to keep moisture out of your control unit.

Check gasket for damage



Make sure you get good contact when you close the battery cover. Lay the cover down flat on the batteries. Press it straight down until it's seated, then fasten both latches at the same time.

Latching one side at a time causes the batteries to slip and lose contact or maybe crack the case.

Never wait until you need to communicate to find out if you have poor contact. If you feel the batteries shift when closing the cover, open it up and reseal them.

45

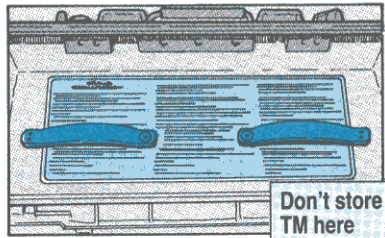
Stop Knocking Off Knob



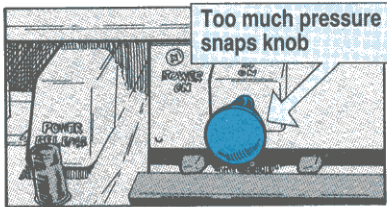
Appearances can be deceiving.

At first glance, it seems the document holders on the underside of the front cover of your AN/UXC-7 facsimile would be great for storing TM 11-5815-615-10.

Wrong! The two clips were placed there to keep papers from blowing away when the fax is being used in the field.



Storing your TM under these clips will put pressure on the power switch shaft when you close the front cover.



The shaft is stiff and inflexible, so it doesn't take much to snap off the knob. And that'll mean shipping your fax to DS to have both the shaft and knob replaced.

Always remove TMs, power cables and other items before closing the AN/UXC-7 cover.

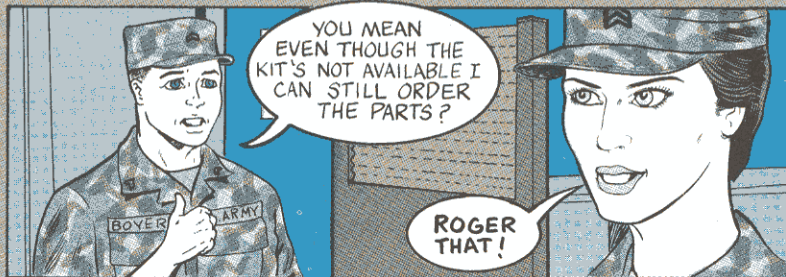
ORDER BY THE PART

REPLACEMENT
CABLE CLAMPING KITS,
NSN 5820-01-045-3153
ARE NOT AVAILABLE.

HERE ARE
THE INDIVIDUAL
PARTS...



Item	Unit of Issue	NSN
Nut, plain, hex, 1/4-20	HD	5310-00-761-6882
Nut, plain, hex, 1/4-28	HD	5310-00-768-0319
Lock washer, 1/4 internal teeth	PG (10)	5310-00-821-6269
Grommet	EA	5325-00-926-1394
Clamp strap	FT	5365-00-783-9035
Clamp strap fastener, SC-C-279924G1	EA	5820-00-930-3435
Clamp strap fastener, SC-C-27992GP1	EA	5820-00-937-9844
Clamp strap fastener, SC-C-279925GP1	EA	5820-00-947-0003
Tiedown strap	HD	5975-00-133-8696
Cotton bag	BD (50)	8105-00-290-3360



No Hocus Pocus,



Your insulated food container, NSN 7330-00-238-2411, is not magic. It won't keep your hot food **HOT** or cold food **COLD** unless you take care of it.

Look over your food container for missing or unserviceable parts. A simple thing like a gasket can make a difference between hot food and cold food.

There are no magic tricks to keep your container in tip top shape, but good PM keeps it warming and cooling food like magic:

Cleaning Clues

Always keep your food container clean. First, remove the inserts and the gaskets. Then wash the container in

Remove inserts to wash container

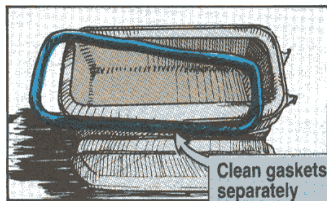


hot, soapy water and rinse it good with boiling water—don't dunk it. Wash the inserts separately with soap and water.

Make sure you wipe off the bottom of the inserts before putting them back in the container. If there's sand on the

bottom of the inserts, it could scratch the inside of the container.

Those gaskets will last longer if you keep them clean, too. Wash them with soap and water every time you clean the food container. Rinse well. Wipe



dry with a clean cloth. Replace the gaskets—flat side down—ASAP. This lets them dry in place so they won't stretch, shrink or lose their shapes.

Just Good PM Focus



NEVER PUT HOT AND COLD FOOD IN THE SAME FOOD CONTAINER AT THE SAME TIME. PUT IN ALL HOT FOOD OR ALL COLD FOOD.

HEAT THE CONTAINER BEFORE ADDING HOT FOOD!

Remove the inserts.

Pour two quarts of boiling water into the container.

Close the container cover and secure the latches diagonally.

Wait 30 minutes.

Empty water.

Put hot food in the inserts.

Replace insert covers.

Place filled inserts in the container.

Close and fasten the container by securing the latches diagonally.

CHILL THE CONTAINER BEFORE ADDING COLD FOOD!

Remove the inserts.

Fill the container with crushed ice or pour two quarts of ice water in the container.

Close the cover and secure the latches diagonally.

Wait 30 minutes.

Empty water.

Put cold food in the inserts.

Replace insert covers.

Place filled inserts in the container.

Close and fasten the container by securing the latches diagonally.

If your container has a loose collar or holes punched in the inner well, replace it. Food gets in the openings, causing bacteria to grow in the insulated space. This will cause your food to become contaminated and there's a good chance that someone will get food poisoning.

Never lay anything on the cover when it's open and never pick up the container by its cover.

Never sit on the food containers or use them for footstools. They're made of aluminum and will not hold your weight.

Always lift the containers down off the end of a truck—never drop them off.

Never use ice picks, screwdrivers or other sharp objects to chip or break ice in your food container. You might poke a hole in the container. Chip the ice before putting it in the container.

Always seal the container by locking one front latch and one rear latch (diagonally opposite) at the same time. Then lock the other two the same way.

Damaged Decals

Sometimes the decals get damaged or lost off of your food container. Order replacement decals with these NSNs:

Decal	NSN 7690-01-
Insulated food container with inserts	224-6411
Instructions for use	220-3274
Nomenclature of parts	223-2521

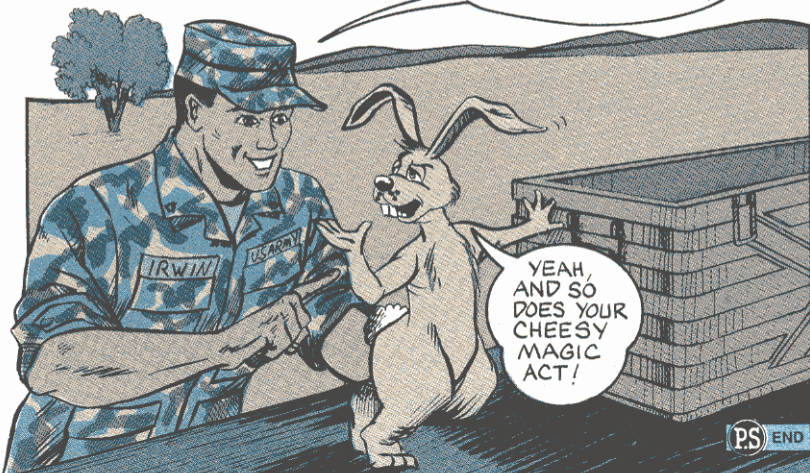
Replacement Items

Here is the parts breakdown for the food container:

Item	NSN
Gasket, outer (cover)	5330-00-032-2722
Cover, insert	7330-00-243-3254
Gasket, insert	5330-00-032-2721
Insert	7330-00-243-3253

I GUESS MY FOOD CONTAINER PM NEEDS SOME WORK?

YEAH, AND SO DOES YOUR CHEESY MAGIC ACT!



Gloves...

Handling the Heat

EVERYTHING IN THE DESERT IS **HOT** - INCLUDING TOOLS AND EQUIPMENT! WEAR GLOVES TO PROTECT YOUR HANDS FROM THE **HOT STUFF!**

HOW CAN WE GET THESE GLOVES?

HERE ARE NSNs FOR THREE DIFFERENT KINDS OF GLOVES.

Anticontact glove

Size	NSN 8415-00-
1	634-4794
2	634-4793
3	269-5700
4	269-5701
5	269-5702

Heavy duty work glove

Size	NSN 8415-00-227-
S	1220
M	1221
L	1222

Light duty work glove

Size	NSN 8415-00-268-
1	7871
2	7872
3	7869
4	7870
5	7868

Repair Your

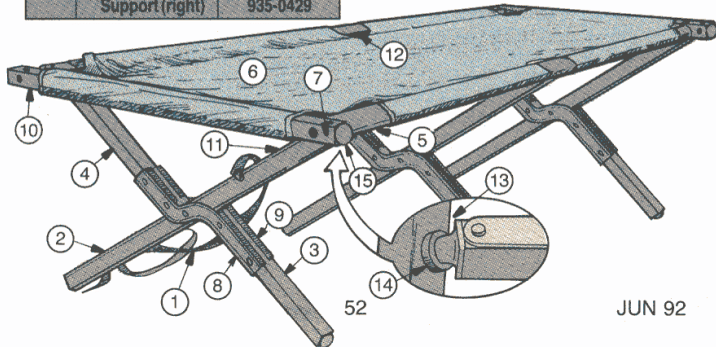
Own Folding Cots



Aluminum Cot
NSN 7105-00-935-0422

Item	Description	NSN 7105-00-
1	Folding Cot Strap	113-0003
2	Leg, Folding Cot	935-0425
3	Lower Half-leg	935-0427
4	Upper Half-leg	935-0426
5	Side Rail	935-0423
6	Cover	935-1845
7	End Stick	935-0424
8	Cross Leg Support (left)	935-0428
9	Cross Leg Support (right)	935-0429

Item	Description	NSN 7105-00-
10	Top Leg Support (left)	935-0431
11	Top Leg Support (right)	935-0430
12	Top Leg Support (center)	935-0432
13	Dowel Plug	935-0433
14	Spacing Plug	935-0434
15	End Plug	935-0435

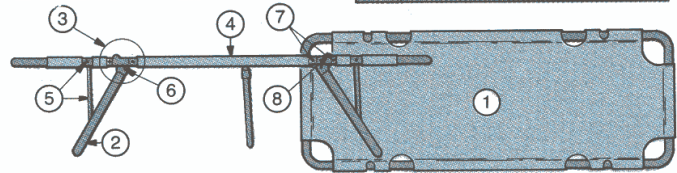


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JUN 92

Folding Hospital Cot
NSN 6530-00-299-8517

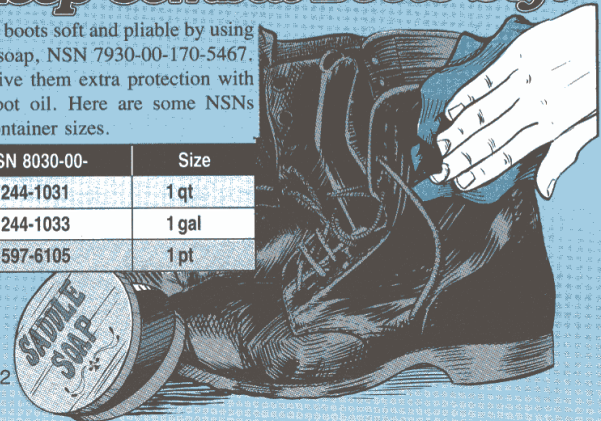
Item	Description	NSN	Item	Description	NSN
1	Cover, Hospital Cot	6530-01-298-7448	5	Brace, Adjustable	6530-01-300-8693
2	Leg, Frame	6530-01-302-0219	5	Nut, Self Locking, Hex	5310-00-208-1919
3	End Frame, Cot, Hospital	6530-01-300-3526	6	Rivet, Tubular	5320-01-299-4174
4	Frame, Side, Cot, Hospital	6530-01-299-8088	7	Screw, Machine	5305-01-301-0812
5	Washer, Flat	5310-00-655-7219	7	Nut, Self Locking, Hex	5310-01-186-1245
			8	Rivet, Solid	5320-01-299-4173



Keep Combat Boots Soft

Keep boots soft and pliable by using saddle soap, NSN 7930-00-170-5467. Then give them extra protection with neats-foot oil. Here are some NSNs with container sizes.

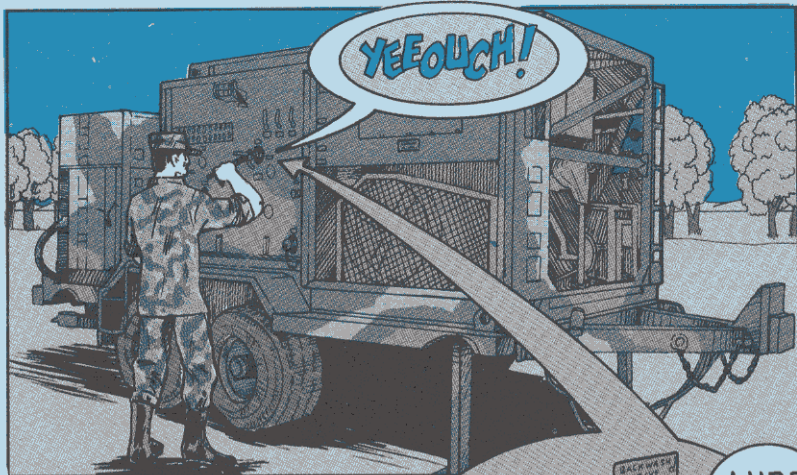
NSN 8030-00-	Size
244-1031	1 qt
244-1033	1 gal
597-6105	1 pt



JUN 92

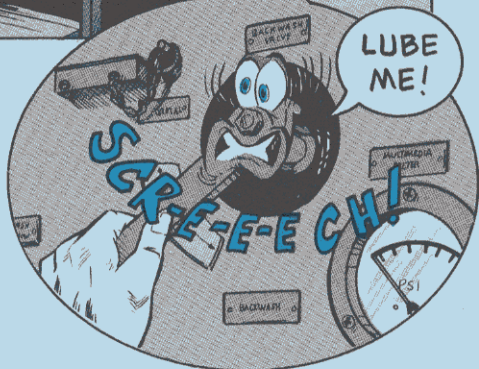
ROWPU...

Lubricate the Backwash Valve



THE BACKWASH VALVE BINDS UP ON THE REVERSE OSMOSIS WATER PURIFICATION UNIT (ROWPU).

THE VALVE NEEDS LUBE TO KEEP IT FREE!




But there's no lubrication point on the backwash valve. To keep it operating freely, lubricate it quarterly, like so:

- Remove the screws from the slip ring around the backwash handle.
- Remove the slip ring.
- Use penetrating oil, NSN 9150-00-458-0075, to lubricate the area around the back of the backwash valve.
- Replace the slip ring and screws.



Small Mobile Water Chiller...

Starting's Not Too Cool

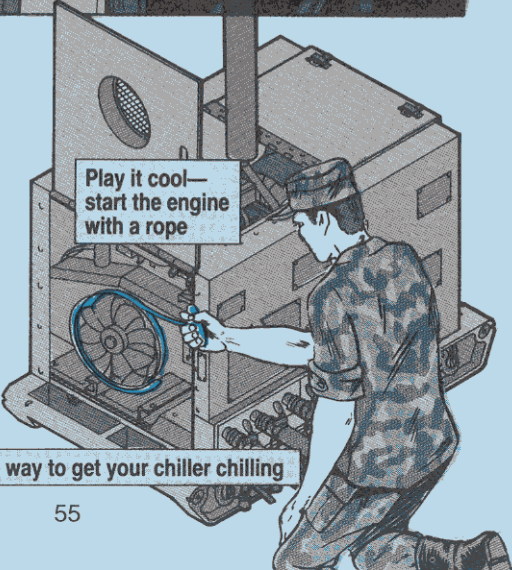


STARTING YOUR MOBILE WATER CHILLER BY THE BOOK CAN GIVE IT THRILLS AND CHILLS THAT'LL STOP IT COLD!

Your -14 TM and the chiller's starting instruction plate say you can use either 12-volt OR 24-volt auxiliary power to start the engine.

Don't count on it. The starting circuit is for 12 volts. A 24-volt power source will burn out the starter button, wiring or starter itself.

To compound the problem, the Army has no tactical truck that uses a 12-volt electrical system.



Play it cool—start the engine with a rope

It's the only safe way to get your chiller chilling

Supply...

Get EIC from RTAIS

Good news, PLL clerks!

If your computer is hooked up to the Remote Terminal AMDF Inquiry System (RTAIS), you can now do a cross-reference between the end item NSN and End Item Code (EIC).

IF YOU KNOW THE
NIIN, WHICH IS THE LAST
NINE DIGITS OF THE NSN, AND
NEED TO FIND OUT THE **EIC**,
KEY IN THE INQUIRY
LIKE THIS:
EIC N NIIN

EIC N 011519915

THE RESPONSE
WILL GIVE YOU THE **EIC**
OF THAT NSN.

IF YOU DON'T HAVE THE
NSN BUT YOU KNOW THE **EIC**, KEY
IN THE INQUIRY
LIKE THIS:
EIC C EIC

EIC C L2A

THE RESPONSE
WILL GIVE YOU THE
NSN OF THE
EIC.

Now you can check out other files in the RTAIS to find out information about the item, such as Line Item Number, nomenclature or part number.

For more information on this RTAIS inquiry, contact the Catalog Data Activity folks on DSN 977-4217/5778 or Commercial (717) 770-4217/5778.

Or write:

Commander
USAMC Catalog Data Activity
ATTN: AMXCA-PP
New Cumberland, PA 17070-5010

Brakes...

HEPA VACUUM PROTECTS *Against* ASBESTOS

Asbestos dust is hazardous to your health. Asbestos dust lingers around every maintenance shop where brake maintenance is done. When you apply the brakes, millions of tiny asbestos fibers are ground off brake pads and linings. These fibers—dust—settle on and around brake parts.

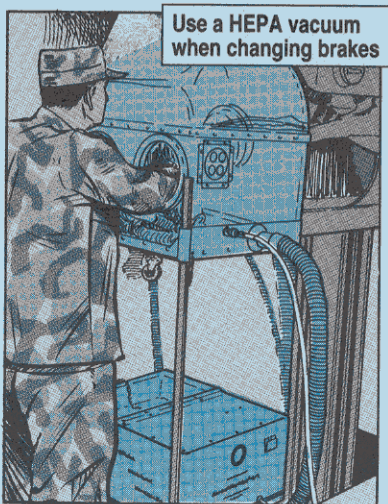
Compressed air used to clean drums will blow about 16 million of these asbestos fibers around your face. Even hitting the brake drum with one stroke of a hammer fills the air with a million fibers.

If you work in a shop where a lot of brake work is done, you breathe enough of the fibers to scar your lungs. You may develop asbestosis or lung cancer.

Protect yourself against asbestosis when changing a vehicle's brake shoes by using a High Efficiency Particulate Air (HEPA) filter vacuum cleaner.

The vacuum cleaner NSN is not on the AMDF. Order the vacuum on a DD Form 1348-6 from RIC GSA. Use NSN 7910-01-292-0009 and put in the Remarks block that the "NSN is not on the AMDF."

The HEPA filter captures dust particles and prevents them from escaping into the air.



Keep Pubs Current

FILL IN BLOCKS 2 THRU 12 ON DA FORM 12-R TO ESTABLISH A PUBS ACCOUNT FOR YOUR UNIT.

REQUEST FOR ESTABLISHMENT OF A PUBLICATIONS ACCOUNT
For use of the form, see DA Pam 25-33, the proponent agency or COSICA

1. ACCOUNT NUMBER
4. FROM: (Include 9-Digit ZIP Code)
5. THRU: (Include 9-Digit ZIP Code)
6. TO: () INITIAL () CHANGE
7. Request an account be assigned (AW AR 310-2 for the following type service:
7. PUBLICATIONS () BLANK FORMS () TEST CONTROL MATERIAL
8. UNIT DESCRIPTION DATA
8. UNIT IDENTIFICATION CODE () TEST CONTROL MATERIAL
9. LOCATION () CONUS () ALASKA () EUROPE () PACIFIC () MOW () PANAMA () HAWAII
9. COMPONENT () ACTIVE ARMY () ARMY RESERVE () NATIONAL GUARD () MARINE CORPS () DOD ACTIVITY () OTHER () AIR FORCE () NAVY
10. The Publications Officer for this organization will be:
10. TYPED NAME, GRADE AND TITLE OF PUBLICATIONS OFFICER
10. SIGNATURE
10. TELEPHONE NUMBER
AUTODIN COMMERCIAL
11. Request the following classification level for this account:
11. UNCLASSIFIED () CONFIDENTIAL () SECRET
12. If requested service is approved, the Security Officer will be:
12. TYPED NAME, GRADE AND TITLE OF SECURITY OFFICER
12. SIGNATURE
12. TELEPHONE NUMBER
AUTODIN

DA Form 12-R

You need the right part to repair a piece of equipment. But without the right publication to find the NSN for that repair part, you're up a creek without a paddle!

The right publication means an up-to-date publication. As the unit pubs clerk, you have an important role in keeping your unit's publications library current.

Start out by making a list of the equipment you need pubs for. The number of pubs your unit needs will depend on your mission and organizational structure. You'll need to check your MTOE or TDA to determine the number of pubs required for each piece of equipment. Don't forget to order

enough for your administrative, training, supply and equipment maintenance folks.

If your unit doesn't have a publications account, get your Bn HQ to send a DA Form 12-R through your publications control officer to the Baltimore Pubs Center.

When that's done, you can request pubs two ways:

Initial Distribution

With your list of equipment, go to DA Pam 25-33 (Jun 88). Copy all the 12-series forms that cover your equipment.

Fill in the number of copies you need on the forms. Then get your publica-

USAAGPC REQUISITION CODE SHEET
PUBLICATION OR FORM CATEGORY AND NUMBER

ACCOUNT NUMBER	CLASS	BLANK FORMS	TEST CONTROL MATERIAL	QUANTITY REQUIRED	UNIT OF ISSUE (SEE 101)	FOR CODE OR APO NUMBER	CLASS
1	M	1	1	1	EA	10561	1
2	M	1	1	1	EA	10561	2
3	M	1	1	1	EA	10561	3
4	M	1	1	1	EA	10561	4
5	M	1	1	1	EA	10561	5
6	M	1	1	1	EA	10561	6
7	M	1	1	1	EA	10561	7
8	M	1	1	1	EA	10561	8
9	M	1	1	1	EA	10561	9
10	M	1	1	1	EA	10561	10
11	M	1	1	1	EA	10561	11
12	M	1	1	1	EA	10561	12
13	M	1	1	1	EA	10561	13
14	M	1	1	1	EA	10561	14
15	M	1	1	1	EA	10561	15
16	M	1	1	1	EA	10561	16
17	M	1	1	1	EA	10561	17
18	M	1	1	1	EA	10561	18
19	M	1	1	1	EA	10561	19
20	M	1	1	1	EA	10561	20
21	M	1	1	1	EA	10561	21
22	M	1	1	1	EA	10561	22
23	M	1	1	1	EA	10561	23
24	M	1	1	1	EA	10561	24
25	M	1	1	1	EA	10561	25
26	M	1	1	1	EA	10561	26
27	M	1	1	1	EA	10561	27
28	M	1	1	1	EA	10561	28
29	M	1	1	1	EA	10561	29
30	M	1	1	1	EA	10561	30
31	M	1	1	1	EA	10561	31
32	M	1	1	1	EA	10561	32
33	M	1	1	1	EA	10561	33
34	M	1	1	1	EA	10561	34
35	M	1	1	1	EA	10561	35
36	M	1	1	1	EA	10561	36
37	M	1	1	1	EA	10561	37
38	M	1	1	1	EA	10561	38
39	M	1	1	1	EA	10561	39
40	M	1	1	1	EA	10561	40
41	M	1	1	1	EA	10561	41
42	M	1	1	1	EA	10561	42
43	M	1	1	1	EA	10561	43
44	M	1	1	1	EA	10561	44
45	M	1	1	1	EA	10561	45
46	M	1	1	1	EA	10561	46
47	M	1	1	1	EA	10561	47
48	M	1	1	1	EA	10561	48
49	M	1	1	1	EA	10561	49
50	M	1	1	1	EA	10561	50

DA Form 4569

USE DA FORM 4569 TO REPLACE LOST OR WORN-OUT PUBS.

tions control officer and unit commander to review them.



Make sure you order only the pubs aimed at your unit's level of command. When the quantity blocks on the DA 12-series form show maintenance levels, put the quantity you need under either "Operator" or "Unit."

When the blocks show Classes of Distribution, put the quantity you need under:

- Distribution A—pubs for company-level units.

- Distribution B—pubs for battalion-, brigade-, regiment- or group-level units.

Once you've established a requirement for a certain pub at Baltimore, you'll automatically receive any changes or revisions to that pub.

Resupply

- You use resupply to:
- Replace lost or worn-out pubs.
 - Get pubs your unit doesn't receive through initial distribution.
 - Get current editions of pubs for your unit library.

Put the manuals you need on DA Form 4569 and send it to Baltimore. Check out Chapter 4 of DA Pam 310-10 for instructions on filling out the 4569 form. Your request can also go through your communications center over AUTODIN on DD Form 173. Check with your communications folks for the correct format.

After the Baltimore folks feed your request to the computer, your pubs are mailed directly to your unit.





Keep Account Up-To-Date

- Keep copies of your DA 4569 and 12-series forms so you'll know what pubs you have on order.
- Update your 12-series forms anytime you replace equipment with a different type of equipment. Delete the pubs on the equipment you turn in and add the pubs for the new equipment.
- Notify your pubs center when your unit is moving. Give them your account number, new and old address and the approximate date of your move.



Odds and Ends

If you have to be out among the elements, here are some things that can help make life easier for you:

Item	NSN
Toothbrush, Adult, pkg of 120	8530-00-080-6341
Ear plug case, pkg of 20	6515-01-100-1674
Insect repellent, 12 tubes per box	6840-01-284-3982
Sunscreen, 4-oz bottle	6505-01-121-2336
Hydrogen peroxide, 1-pt bottle	6505-00-153-8480
Saddle soap, 1 pound	7930-00-170-5467
Talcum powder, 9-oz can	8510-00-817-0295
Neat's foot oil, 1 quart	8030-00-244-1031
Snake bite kit	6545-00-526-1887
Insect sting kill, pkg of 10	6510-01-045-3506
Chapstick, pkg of 100	6508-01-265-0079
Sunglasses	8465-01-114-1488
Goggles, sun, wind and dust	8465-01-004-2893

Item	NSN
Goggles, safety	4240-00-052-3776
Face paint, desert camouflage	6850-01-262-0635
*Respirator mask	4240-01-234-6117



Flashlight	NSN 6230-00-
MX-991	264-8261
MX-212	161-6422
Flashlight filters	NSN 6230-00-
Red	111-0190
Opaque (blackout)	128-2464
Diffusion	356-4825
Green	504-8341



* Not on the AMDF. Order on a DD Form 1348-6.



Winning with SFDLR

If an item you purchased under the stock funded depot level reparable (SFDLR) program doesn't work when you first plug it in, you have an initial failure. You can get credit. Here's how:

- Don't try to fix the item.
- Call your Logistics Assistance Office (LAO). An LAR (Logistics Assistance Representative) must validate the initial failure.

- Fill out an SF 368, Quality Deficiency Report, signed in Block 22 by your LAR. Turn in the part and the SF 368 in to supply for credit.

Your LAO has AMC Msg AMCLG-ME 272333Z Mar 92, which has the info on initial failure parts.

Hotline Update

Ah, progress! Telephone number changes at Ft Belvoir make their hotline numbers listed on Page 31 of PS 472 useless. Here are the right ones to use:

- Fuels/lubes:
DSN 654-1817
COMM 703-704-1817

- Supply distribution equipment, water/fuel supply systems, support equipment, electric power systems, heaters, air conditioners:

DSN 654-2074
COMM 703-704-2074

Weapon Systems Hotlines

Here's a list of phone numbers for the weapon system manager responsible for logistics and readiness of some weapon systems:

SYSTEM/PROPONENT

	Comm <u>313-574-</u>	DSN 786-
<u>TACOM</u>		
M1/M1A1	6767	6767
M2/M3	6632	6632
M113	5086	5086
HMMWV	8060	8060
HEMTT	6749	6749

	Comm <u>205-</u>	DSN
<u>MICOM</u>		
HMMWV TOW	842-0476	788-0476
MLRS	876-8957	746-8957

	Comm <u>309-782-</u>	DSN 793-
<u>AMCCOM</u>		
M109	5432	5432
M110	3315	3315
M102	3453	3453
M163	5815	5815
M167	8057	8057
M198	8048	8048

	Comm <u>314-263-</u>	DSN 693-
<u>AVSCOM</u>		
AH-64	1261	1261
OH-58A/C/D	1268	1268
UH-1/UH-60	1268	1268
CH-47	1221	1221

USAREUR Aviation Hotline

Now Europe has a hotline to answer your aviation historical records information needs. Call ETS 382-5109; or fax ETS 382-5324, commercial 0621-784424.

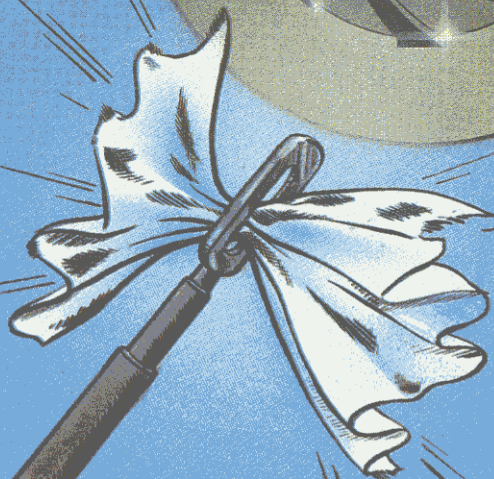
Distribution: To be distributed in accordance with DA Form 12-34-C-R, for TB-43-Series

Would You Stake Your Life on the Condition of Your Equipment?

★ U.S. Government Printing Office: 1992/648-071/60005

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

YOUR BARREL'S NOT CLEAN...



... 'TIL THE PATCH IS!