

Issue 451

PS

June
1990

TB 43-PS-451

THE PREVENTIVE MAINTENANCE MONTHLY



PSST...
JUST HOW "FREE"
IS THE
FREE TURN-IN?

SUPPLY

**FREE
TURN-IN
TODAY**

For "FREE" Turn In...
See Page 27

Keep up with Quarterlies



Armoreders have a heavy load, what with an endless stream of equipment problems, inspections, and the other jobs every soldier has to do. In the flurry of activity, it's easy to miss deadlines for quarterly and semiannual inspections and verifications. So what happens?

Rifles and machine guns aren't gaged for problems like headspace and barrel erosion. Weapons get in such bad condition they can't hit anything—and sometimes they're dangerous.

They also must be listed as NMC. That's bad for everybody in your unit, from the operators who use the equipment to your CO who's responsible for equipment readiness.

But it's not that hard to keep track of when equipment is due for inspection... if you have a system.

One way would be to keep all your DD Form 314's in a loose-leaf notebook or box and just note in the REMARKS column when the next inspection's due.

For rifles or machine guns that are always stored in the same place in a rack, get stick-on labels or a sheet of acetate from your Self-Service Supply Center. 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 verified; next due; 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 when you rotate out understands how you've kept track of gaging and verification. You'll be doing your unit a favor.

PS THE PREVENTIVE MAINTENANCE MONTHLY

TB 43-PS-451, 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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The Adjutant General

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Going from A1 to A2



WE'RE HAVING TROUBLE FITTING OUR NEW M16A2'S INTO OUR RACKS.

HAVE THE OLD RACKS MODIFIED OR ORDER NEW M12 RACKS!

➤ The old M11 rack won't work with the longer M16A2's, unless it's modified by your support. Your best bet is to order new M12 racks, NSN 1095-00-407-0674.

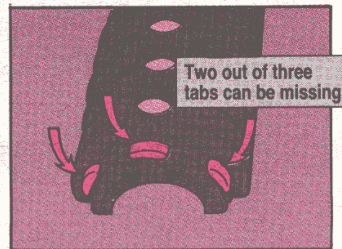
For you armorers whose units are starting to get the M16A2's, there are a few things you need to remember:

➤ A side sling adapter is now available that fits both the M16A1 and M16A2 rifles equipped with the M203 grenade launcher. The side sling adapter is more durable and doesn't rub the finish off the M16's front sight. Get your support to install locking swivel bar, NSN 5340-01-264-6530, and swivel mount, NSN 1010-01-264-6517.

➤ The M16A2 requires a different front sight post removal tool. Instructions for fabricating the tool are on Page E-2 in TM 9-1005-319-23&P.

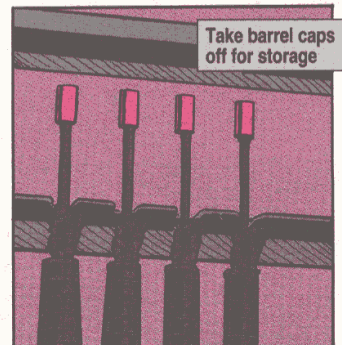
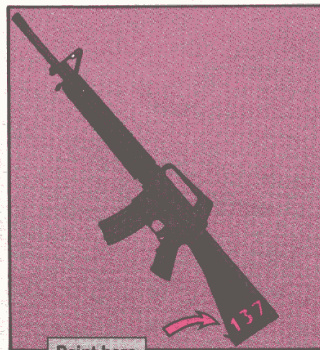


➤ The M16A2 is mission capable even if two of the three front retaining tabs on either handguard are missing.



➤ The new M16A2's come with caps on their barrels. But never store rifles with the caps on. Caps trap moisture, which causes corrosion. The caps are only for field use to prevent the barrel from plugging up with dirt.

➤ If the tape for marking your M16A2's is not sticking, try cleaning the buttstock with drycleaning solvent, NSN 6850-00-281-1985. If that fails, you can paint the numbers on the stock.



➤ Some M16A2 bolts may seem to have loose gas rings. But the bolt's OK as long as it passes the serviceability test on Page 2-22 in TM 9-1005-319-23&P.

Mortar

THESE SHOCKS ARE IN SAD SHAPE! WHY CAN'T THEY TAKE CARE OF THIS M30?



YEAH!
YEAH!

CORROSION!
THEY SHOULD USE
DRY CLEANING SOLVENT
INSTEAD OF STEAM
OR WATER!

A FEW MATTERS THAT MATTER TO YOUR M30 MORTAR:

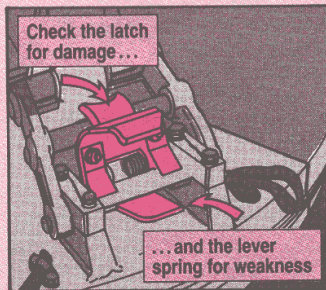
CLP's great for some small arms but don't use it on the M30. CLP breaks down the grease in the shocks, tube, collar, and base cap, and ruins the seals, too. Parts bind and eventually freeze up.

Lube with General Purpose Lubricating Oil only, except on the baseplate. It takes GAA.

High pressure water and steam cleaning wash out grease, causing parts to bind and corrode. Clean the M30 with drycleaning solvent, NSN 6850-00-281-1485, only. Then lube it. Be sure to remove the M30 from the carrier before you take the carrier through the wash.

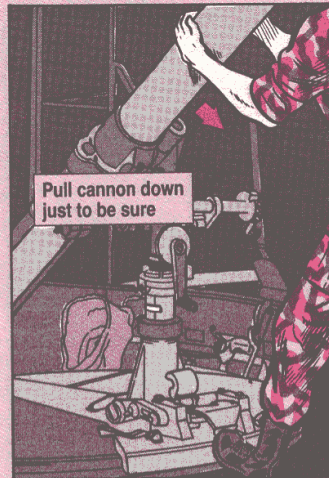
Keep paint away from the mortar. If paint gets around the shocks or other moving parts, it also causes binding.

If the carrier mount can't do its job, the M30 can drop from the firing to the traveling position while you're firing. Before firing, eyeball the recoil stop clamp, standard support latch, and release lever. If the clamp or latch is bent or doesn't mate right, or the release lever's spring is weak, report it.

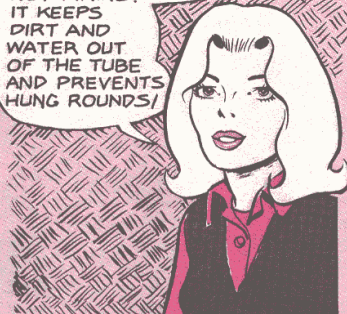


Matters

Even if everything looks OK, put the mortar in the firing position and tug down on the tube to see if the stop clamp and support latch hold.



USE MUZZLE CAP WHENEVER YOU'RE NOT FIRING! IT KEEPS DIRT AND WATER OUT OF THE TUBE AND PREVENTS HUNG ROUNDS!

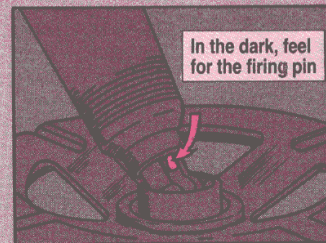


Feel the Pin

The only way you can be sure the M252's cannon is locked in the baseplate is to check that the firing pin is up and visible in the breech plug.

But at night you can't see the pin.

No problem. Just feel for the firing pin when it's too dark to see it. If the cannon's locked in, you'll be able to feel the pin through the breech plug slot.

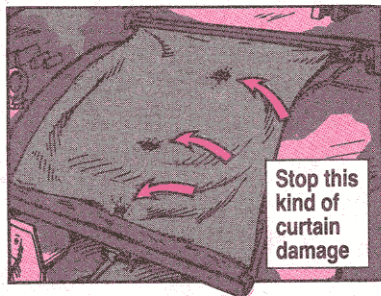




Lack of lube puts your howitzer's weather cover on "sick call" just as sure as the flu sends you to the clinic.

Miss the monthly dose of PL-S or CLP called for in LO 9-2350-311-12 and your weather cover can seize up. Then the curtain won't retract.

The curtain then gets torn on the cradle assembly and trunnion bracket stops when the tube is elevated. Then, when the tube is depressed, the curtain snags the trunnion bracket stop, cracking the curtain support.

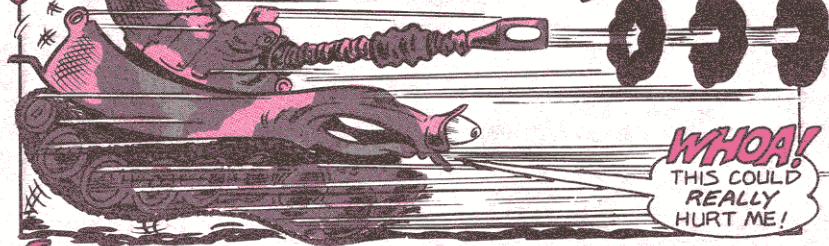


All this damage can be prevented if you perform the monthly lube and check to see that the curtain retracts and pulls out right when the tube is raised and lowered.



Make sure PL-S or CLP gets on the roller assembly shaft and the spring anchor. If your cover is already damaged, report it to DS.

Bleed the Recoil System

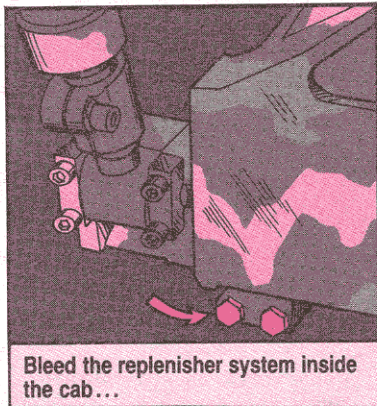


Eliminating jerky recoil in your M109-series howitzer can be as easy as pulling your BEFORE PMCS on the replenisher system, which includes bleeding it.

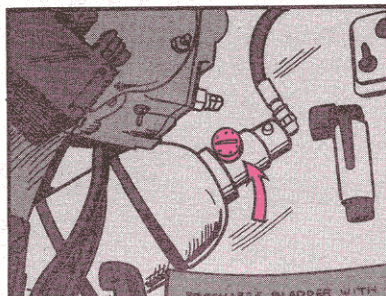
There's no way to live with jerky recoil. Something is damaged every time that the cannon recoils hard and counter-recoils too fast.

If it counter-recoils fast enough, rollers on the crank assembly could break or the breechblock might rotate too far.

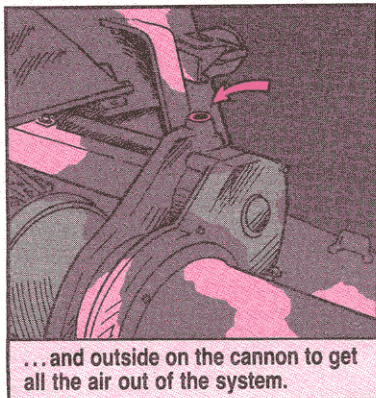
Prevent all the damage by pulling the PMCS as shown on Pages 3-41 and 3-42 in TM 9-2350-311-10.



Bleed the replenisher system inside the cab...



Make sure the replenisher gage reads 17-24 PSI before firing and 17-50 PSI during firing.



... and outside on the cannon to get all the air out of the system.

DIRECT FIRE TM CHANGES



Until TM 9-2350-304-10 is updated, add a couple of warnings and delete a table in the direct fire section of TM.

1. On Page 2-114, just before the general comments, add this warning:
"Direct fire on targets located closer than 1,000 meters from the howitzer will be initiated during combat situations only. Lethal fragments can travel up to 800 meters from the point of burst."

2. On Page 2-117, add this warning just before the information on laying for direction and elevation for the two man-one sight system:

"The two man-one sight or one man-one sight system should be used only when the target and howitzer are at the same elevation, with no mask (site or crest) obstacles in between. Firing at targets above or below the howitzer position require adjustments to the quadrants listed on the range chart. Adjustment must be computed by the Fire Direction Center in accordance with FC 6-40, paragraph 6-17c through 6-17i. For this reason, the primary means of direct fire will be the two man-two sight method."

3. In addition, change the last sentence of the "Laying for direction and elevation" paragraph to read:

"The direct fire range chart can be used to convert range to quadrant."

4. Delete the vertical displacement and range table shown on Page 2-117.

Use Authorized Tires Only

That means use M939-series 5-ton truck tires (in pairs) as replacements *only* in an emergency.

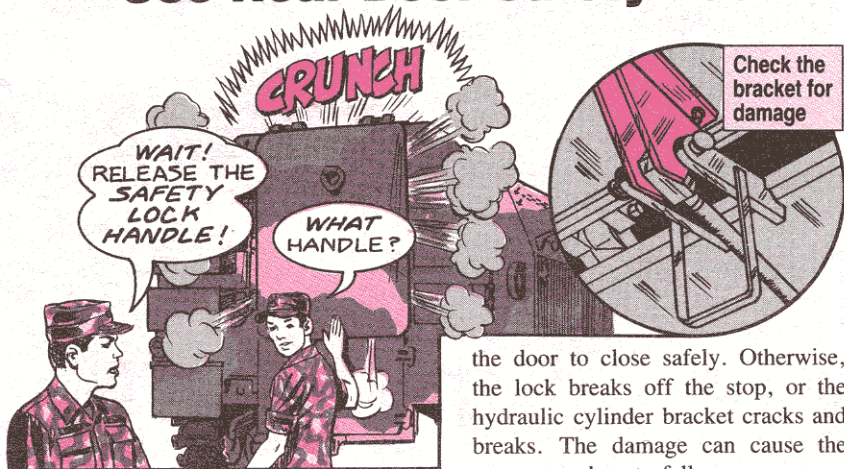
The truck tire is bigger in diameter and requires that the tire and rim must be mounted in reverse. Doing this increases the width of the howitzer and causes excessive stress and wear on wheel bearings.

Get a radial tire for your M198 with NSN 2610-01-287-6409. You'll get a tube flap with the tire.



The tube you need comes with NSN 2610-00-029-0563. If you just need a flap, use NSN 2640-01-295-9967.

Use Rear Door Safety Lock



Upper rear doors on M992 ammo carriers are broken because crewmen forget to release the mechanical safety lock handle before lowering the door.

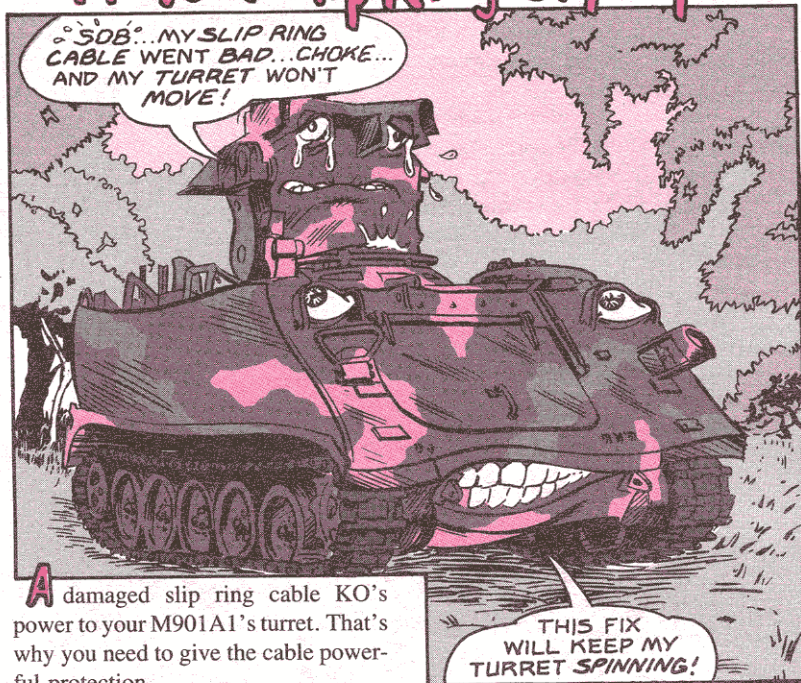
The lock handle pulls the safety lock away from the lock stop and allows

the door to close safely. Otherwise, the lock breaks off the stop, or the hydraulic cylinder bracket cracks and breaks. The damage can cause the upper rear door to fall.

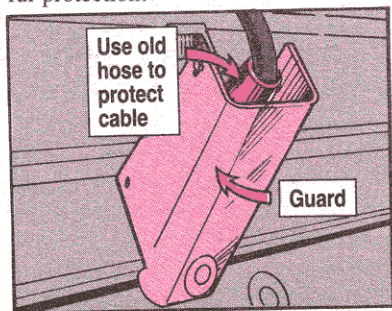
Keep an eye on the door bracket and the lock stop, looking for cracks or breaks. If you find any, sing out to your mechanic now.

And always release the safety lock before lowering the upper rear door.

Prevent Slip Ring Slip Ups



A damaged slip ring cable KO's power to your M901A1's turret. That's why you need to give the cable powerful protection.



The best protection is an old rubber hose—the thicker, the better. A heater hose from a 2½- or 5-ton truck is perfect. Split six inches of hose. Glue it

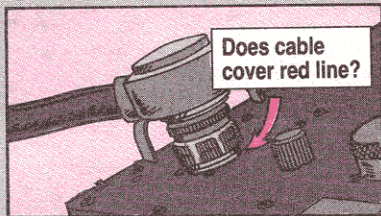
around the slip ring cable where the cable passes the floorplate. NSN 8010-01-040-0947 brings a glue good for the job.

Also feel—and eyeball—the floorplate's mounting bolts for looseness during BEFORE PMCS. Shiny areas around bolts mean they're loose. Loose bolts let the floorplate shift and slice up the slip ring cable. Tighten loose bolts.

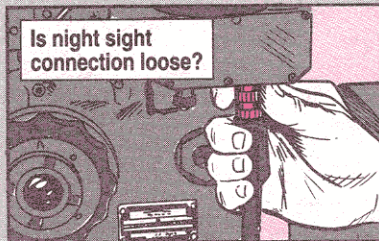
If you remove floorplates, take off the cable guard first. Be careful not to pinch the cable when you pull up or put down the floorplate.

Give the NO/GO to Trouble

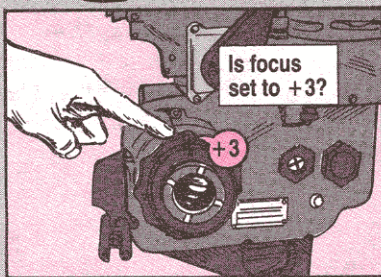
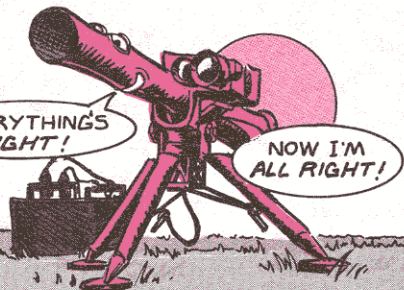
Sometimes the answer to a problem can be as simple as a loose connection or a wrong setting. When the missile guidance set (MGS) won't check out, try these checks before you call your repairman:



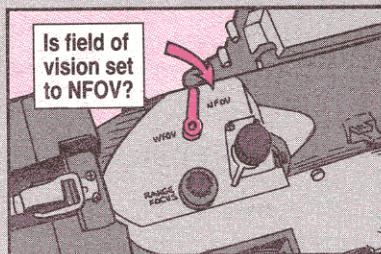
★ Bad readings? Make sure the 2W1 cable adapter is completely screwed down over the red line on the J1 connector. A loose 2W1 cable causes bad readings.



★ No MGS PASS or OSS PASS light? Feel the connection to the night sight for looseness. If the night sight's not hooked in to the rest of the TOW, you get bad readings.



★ OSS PASS light won't stay lit? Check that the day sight tracker focus control is on +3.



★ MGS test won't run to completion? Eyeball the night sight's field-of-view switch. It must be set on NFOV.

If none of these checks or the checks in Para 2-33 in TM 9-1425-450-12 correct MGS problems, call your repairman before you swap MGS's. If something in the TOW system is shorting out MGS circuit cards, you'll have two NMC MGS's instead of one if you swap before finding the problem.

Turn Off Light Problem

Dear Editor,

There are two sets of lights in the FAAR shelter: one red, one white. Many FAAR operators do not realize the lights are wired in series. If one white light goes out, the other white one will go off. So when the lights go out, they think the whole lighting system's down.

Save a call to your repairman. If the white lights go out for instance, unscrew a red bulb and try substituting it for each of the two white bulbs. If it's just a bad bulb, the lights will come back on and you'll be back in business.

SGT Mike Pepper
Ft Stewart, GA



(Editor's note: If you're operating under black-out conditions and you replace a red light with a white one, turn off the shelter lights before you open the door. Be sure to replace the bulb when you get back to the motor pool.)

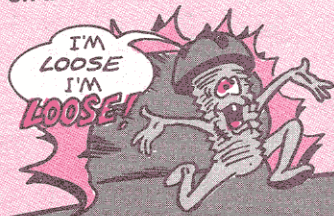
Tighten, Then Check

Dear Editor,

If the screws are loose on the FAAR radar receiver's modules, components slide back and forth and cause connections to break contact. That causes faulty readings. Troubleshooting won't spot loose screws.

Save yourself some aggravation, mechanics. Before you begin troubleshooting, tighten the receiver's screws, particularly those on the Self-Test Panel.

SGT Chris Smay
Ft Stewart, GA






(Editor's note: Sometimes the simplest problems are the hardest to spot. Thanks.)

AMG Cautions

The curbside and roadside mast antennas on the Antenna Mast Group (AMG) can snap and fall because of high wind or weakness in the masts.



Play it safe and do this:

-  Inspect the antenna positioners and lower antenna support welded joints for peeling paint and cracks before you raise the masts. Report problems to your repairman.
-  Stay out from under the antennas while they're being raised or lowered.
-  Lower the masts immediately if the sway alarm sounds. Test the masts at various lower heights until the sway alarm does not sound.

See MICOM Msg 231030Z Sep 88, AL/AMSMI-LC-AM for more details.

Match Air Filter Element to Housing

OH, DARLING, YOU KNOW THE AIR FILTER ELEMENT AND THE AIR FILTER HOUSING MUST MATCH ON THE M113A2-SERIES VEHICLES OR THEY WON'T WORK RIGHT!

SIGH... I GUESS WE WEREN'T MEANT TO BE TOGETHER.

Here's how you must match elements to housings for the two types in use:

Housing with 1 circle indented...

... and filter element

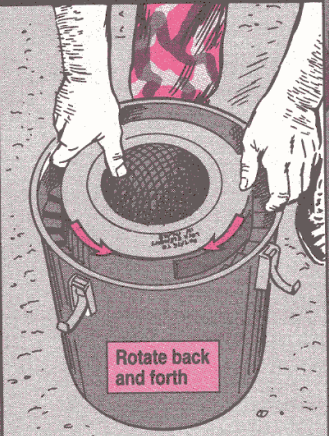
Housing with 3 small circles...

... filter for that housing

Housing with one circle indented on the bottom—NSN 2940-00-999-2119—takes only filter element, NSN 2940-00-930-2065. The element has no fins and is open at both ends.

Housing with three small circles indented on the bottom—NSN 2940-00-103-5797—takes only filter element, NSN 2940-00-168-2337. The element has fins at the top and a completely closed bottom.

Mounting Tip



Rotate back and forth

When installing the finned filter element, make sure to rotate it in the housing until it fits snugly onto the three indented circles in the bottom of the housing. You'll bust the clips trying to close it otherwise.

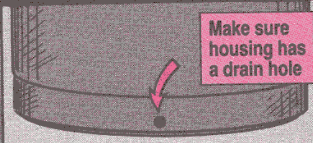
Cleaning Tips



Clean the filter by tapping it

Crews, you only clean the element by tapping it. Tap the sides of the element gently with your hands. If that doesn't work, call in your mechanic. He'll clean the filter by either blowing it out with 35 PSI air pressure or washing it in soapy water.

Water Drain Tip



Make sure housing has a drain hole

Make sure the housing has a drain hole to let water out. The hole should be on the housing bottom. If yours doesn't have one, get your mechanic to drill one with a 3/16-in bit.

Then mount the housing with the hole at the lowest possible point so water will run out.

M113-Series FOV...

"Hot" Marker for Radiator Cap

All you M113-series vehicle owners need to install this warning marker on the radiator cap.

It'll help warn operators and mechanics not to open a radiator cap while the engine coolant is hot, which will help prevent burns and scalds.

Get a radiator parts kit, NSN 2590-01-259-4410, which has enough markers and adhesive to modify 30 radiator caps.

If you need a new cap with the decal, order NSN 2910-01-259-4432.



Battle Damage TM Listing

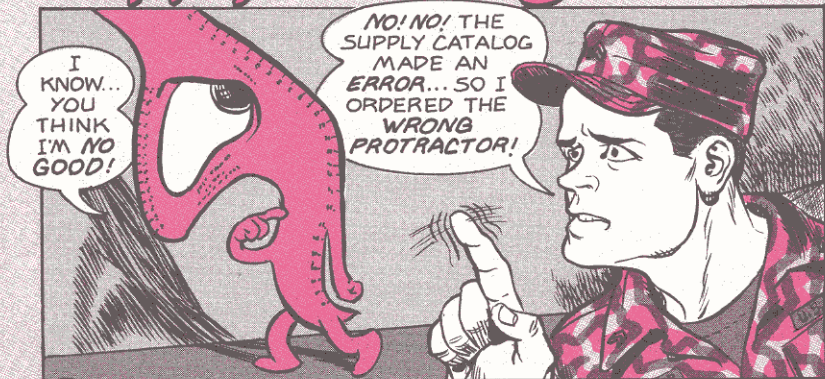
THESE BATTLE DAMAGE ASSESSMENT AND REPAIR TM'S ARE AVAILABLE THROUGH THE ARMY'S PINPOINT DISTRIBUTION!



To get these TM's, have your pubs clerk order them on DA Form 4569.

TM 3-251-BD	Chemical Defensive Materiel
TM 5-3835-222-BD	POL Equip
TM 5-4120-394-BD	Environmental Control Equip
TM 5-6115-624-BD	Generators
TM 9-1000-258-BD	M198
TM 9-1005-321-BD	PIVADS
TM 9-1425-433-BD	Avenger
TM 9-1425-485-BD	Lance
TM 9-1425-646-BD	MLRS
TM 9-1425-1586-BD	Chaparral
TM 9-2350-255-BD	M1
TM 9-2350-273-BD	M48/M60
TM 9-2350-274-BD	M109
TM 9-2350-275-BD	M113
TM 9-2350-276-BD	Gen Combat Veh
TM 11-5800-215-BD	Comm-EI Equip
TM 55-1520-228-BD	OH-58
TM 55-1520-237-BD	UH-60
TM 55-1520-244-BD	AH-1

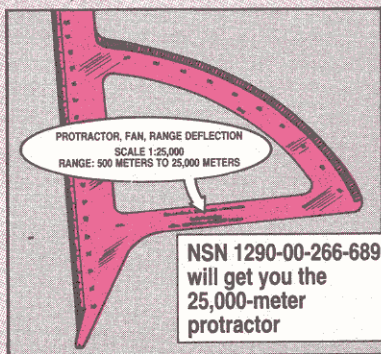
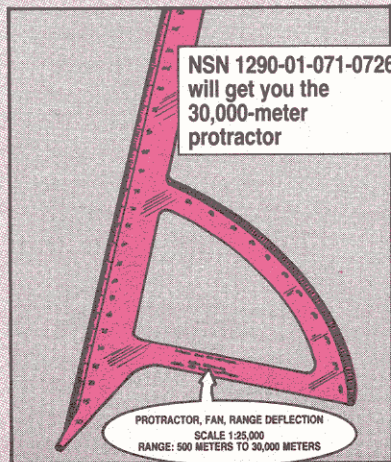
Supply Catalog in Error



SC 1290-95-CL-A01 for the No. 3 and No. 4 artillery fire direction sets leads you astray for ordering protractors.

Fire direction set No. 3 comes with a 25,000-meter protractor, not a 30,000-meter one as called out in the catalog. If you need the 30,000-meter protractor, use NSN 1290-01-071-0726.

Fire direction set No. 4 comes with a 15,000-meter protractor, not the 25,000-meter one called out in the catalog. If you need the 25,000-meter protractor, use NSN 1290-00-266-6891.



Once you receive the replacements, turn the other protractors in as excess property for return credit. See Chapter 8 of AR 725-50.

A reminder—the carrying case pocket in both sets is not designed for the larger protractor. Put the protractor inside the case, instead.

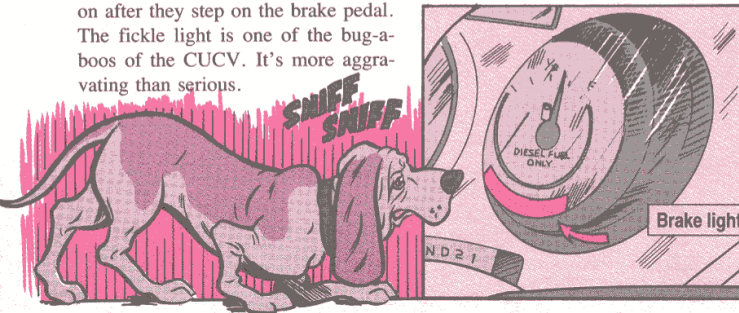
Fickle Brake



It takes more than a good bloodhound to track down problems in the CUCV's brake system.

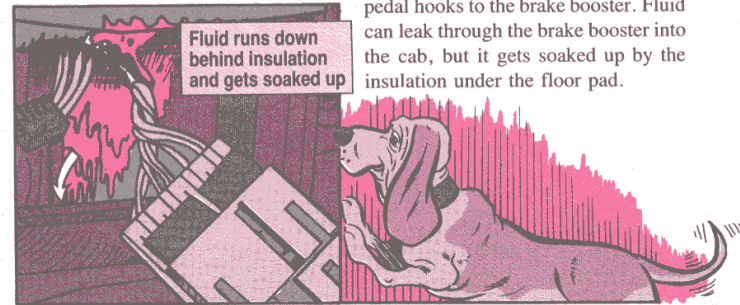
Some drivers call a mechanic when the brake warning light flickers or stays on after they step on the brake pedal. The fickle light is one of the bug-a-boos of the CUCV. It's more aggravating than serious.

The light sometimes comes on and stays on when you quickly apply and release the brake pedal. It'll go off the next time you step on the pedal. That's just the way it works.



Light Flashes

If the light stays on, though, after the second time, you've got trouble. Check the fluid level in the master cylinder. If it's low, check the system for leaks. No leaks? Check again. This time look under the dash at where the brake



Feel the insulation. If it's wet, get your mechanic to replace the brake booster. That is the only way to stop that leak.

If the fluid level is OK, and the warning light is still on, replace the combination valve, NSN 2530-01-156-8317, on the M1009; or NSN 2530-01-124-3422, on all other models of CUCV's. The valve is shown as Item 21 of Fig 85 in TM 9-2320-289-20P.

Brake Booster NSN

When you order the CUCV's brake booster (all except M1009), you get the brake booster without a pedal rod or grommet. To get the booster with rod and grommet, use NSN 2530-01-151-5967. The pedal rod alone comes with NSN 2530-01-241-4849, and the grommet with NSN 5385-01-287-5878.

Tach Drive Tip NSN

The NSN for the tachometer drive tip for the M939A1 is missing from Item 3 in Fig 59 of TM 9-2320-272-20P. It's 5340-01-290-1738.

Turn Signal NSN

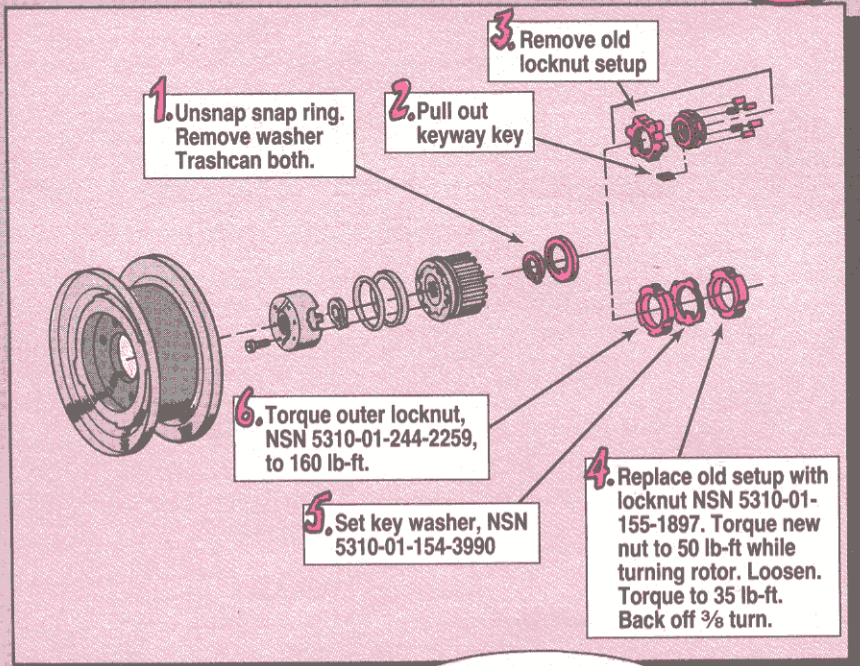
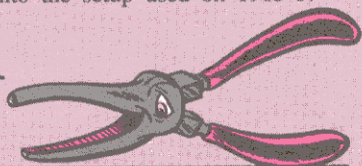
The NSN for the turn signal control for the 2½-ton truck, listed as Item 5 of Fig 64 in TM 9-2320-209-20P, is wrong. The correct NSN is 6220-00-431-3771.

Locknut Lockout Unlocked

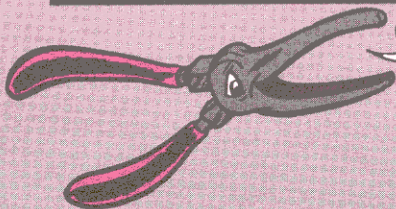
You're locked out when you order the locknut and key on the front wheel bearings of 1984 model M1009's. The parts listed as Items 14 and 15 in Fig 92 of TM 9-2320-289-20P are not available.

To replace these parts, you have to lock into the setup used on 1985-87 M1009's.

HERE'S HOW!
AFTER YOU PULL OFF THE
FRONT LOCKING HUB...



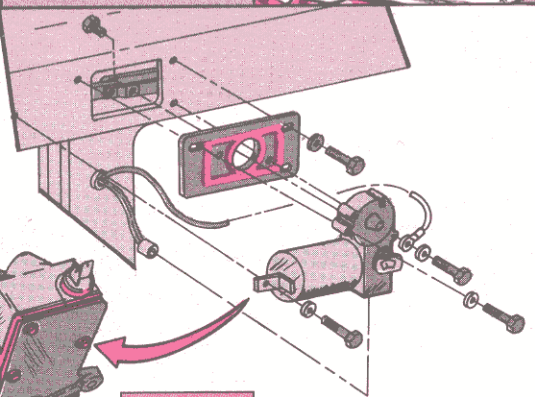
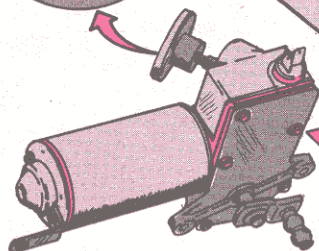
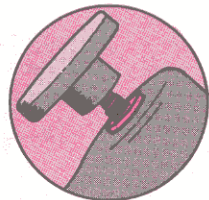
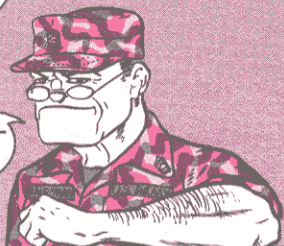
...THEN PUT THE
HUB BACK ON AND DO
THE SAME FOR THE
OTHER SIDE!



Keep the Water Out

THE HMMWV'S WINDSHIELD WIPER MOTOR WON'T WORK WHEN IT'S CLOGGED WITH RUST!

KEEP RUST OUT OF THE MOTOR WITH SEALANT NSN 8040-00-833-9563. BE SURE TO COAT THESE AREAS:



Backside of wiper motor

Here's the way to waterproof the motor:

- ① Disconnect the battery ground (-) cable.
- ② Remove the motor from the frame.
- ③ Coat the wiper motor with sealant, NSN 8040-00-833-9563. Let it dry for about two hours.
- ④ Coat the front and back side of the mounting plate and the area around the wiper arm with a 1/4-in bead of sealant.
- ⑤ Use two lock washers, NSN 5310-00-550-1130. Use 1/4-in head socket bolt, NSN 5305-00-071-2505, to put the wiper motor and mounting plate back on the frame.
- ⑥ Connect the battery ground cable.

Hood Hookers and Hold-Ups



If your M44-, M39- and M809-series truck has a ring mount, bonnet or water purification unit, you've got a problem. The hook on the top panel is too short to hold up the hood.

You can keep the hood up in one of three ways:

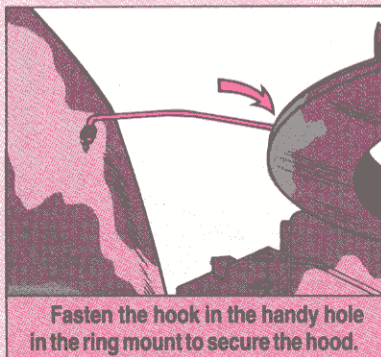
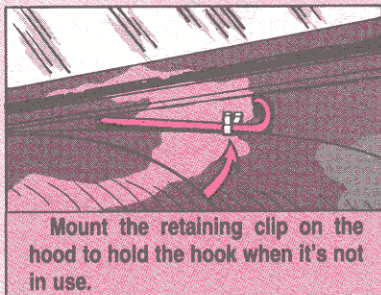
➤ Replace the hook and latch with latch kit, NSN 2510-01-281-1273. It has a hook long enough to secure the hood.

➤ Have your support fabricate a longer hood holder. The instructions are on Pages 4.36.2 and 4-37 of TM 43-0143 w/Change 1.

➤ Modify the existing hook so it will do the job. Here's how the mechanics at KYARNG OMS 3 in Lexington, KY, do it on their trucks with machine gun mounts:

—Move the hook to the front center of the hood.

—Straighten the loop at the end of the rod into a hook.



Fill'er Up-But Not Too Much



TOP OFF THAT TANK SO WE GET A FEW EXTRA MILES!

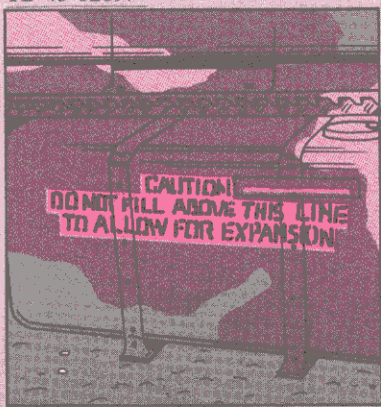
IF I TOP OFF THIS TANK, THE ONLY EXTRA MILEAGE WE'LL GET IS TO THE SHOP!

Drivers, when you fill up your truck, remember topping off the tank on your 5-tonner will not take you extra miles. Instead, it could put your truck in the shop.

Extra fuel gets sucked into the fuel vent lines that go into the engine air intake system. Fuel clogs the air filter. Worse, diesel fuel sucked thru the air cleaner can cause engine runaway. Fuel leaks past the piston rings into the engine oil. When it does, it dilutes the oil. Oil can't do its job of protecting moving parts. Parts grind themselves to bits.

So, when you top off your tank, leave about 2 inches below the fill neck for expansion room.

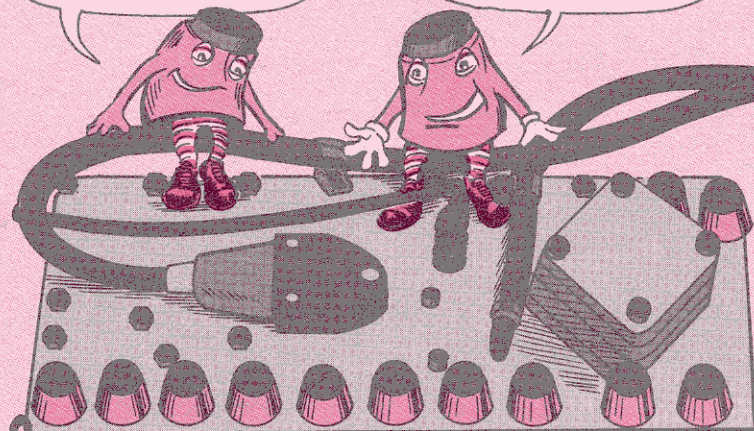
If the fuel tank on your truck does not have a fill line, have your mechanic mark it like it says on Page 40-41 of TB 43-0209:



Breathers Need to Breathe

THE BREATHERS ON THE TRANSMISSION CONTROL OF THESE BIG TRUCKS ARE LITTLE THINGS.

BUT LITTLE THINGS ADD UP TO GIANT-SIZE TROUBLE IF THEY'RE OVERLOOKED OR NEGLECTED!



Sand, dirt and moisture collect on top of the control housing on the air shift transmissions of M915-series trucks. These get into the transmission if the breathers are missing or cracked. Then the transmission fails.

Check the breathers during each semiannual service or more often if the truck is used in dusty or sandy areas. Wipe off the area around the breathers before you remove one.

If a breather is loose, tighten it finger tight. Screw it in too tight and it'll crack. Replace cracked or missing breathers with NSN 2520-01-077-2803.

Need Back Issues of PS?

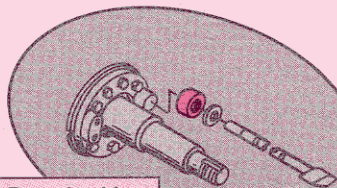


M172-Series...

Tight's Not Right

Mechanics, be on the lookout for bum nylon sleeve bearings, NSN 3120-00-331-2640, for the M172-series semitrailer's brake camshaft rod. Some come so small the rod will hardly turn inside the bearing. But you can "stretch" 'em to fit. Get your DS to ream the hole.

The hole in the bushing should have $\frac{1}{32}$ -in clearance for the camshaft rod to slide through and rotate. DS can ream the bushing to 1.533 inches. That way the rod and the grease will have plenty of breathing room—and the brakes won't lock up.



Ream bushing to 1.533 inches

M872 Semitrailer Grommet NSN

TM 9-2330-359-14&P does not list the NSN for the rubber grommet that protects the air lines passing through the nose box.



Get the grommets with NSN 5325-00-291-9366

WITHOUT THE GROMMETS, AIR LINES RUB AGAINST THE HOLES, WEARING THROUGH AND CAUSING A LOSS OF AIR PRESSURE.





This is a selected list of recent pubs of interest to organizational maintenance personnel. This list was made from a computer print-out provided by the Adjutant General.

TM 3-4230-229-10 Oct 89 M291 decontaminating kit
TM 5-2420-224-10 Dec 89 Small emplacement excavator and high mobility material handler
TM 5-4120-380-14 Oct 89 24,000 BTU air conditioner, model MOAC 226
TM 9-1265-376-10 Dec 89 Multiple integrated laser engagement system
TM 9-2320-272-10-HR Apr Hand receipt for M939/A1/A2-series 5-ton trucks
TM 9-2350-238-10 Apr M598 recovery vehicle
TM 9-2350-259-10 Apr M901A1 improved TOW vehicle
TM 9-2350-259-20 Apr M901A1 improved TOW vehicle
TM 9-2350-266-20 Apr M981 FISTV
TM 9-2350-304-10 Apr M110A2 SP howitzer
TM 10-3930-643-10 Jan M10A rough terrain forklift
TM 10-3990-225-10 Feb Ramp and winch assembly, barrier winch model U632AV
TM 10-5411-207-14 Sep 89 S-280C/G electrical equipment shelter
TM 11-5805-262-12 Feb Operator's and unit maintenance manual for switchboards, telephone, manual, SB-22/PT and SB-22A/PT (including tone signaling adapter, TA-977/PT
TM 11-5820-890-20-1 Oct 89 AN/PRC-119, AN/VRC-87, AN/VRC-88, AN/VRC-89, AN/VRC-90, AN/

VRC-91, and AN/VRC-92 radio sets
TM 11-5820-1022-13-2 Feb AN/TRC-191 and AN/TRC-191A radio access unit
TM 11-5820-1023-13-2 Feb AN/TRC-190(V)1, AN/TRC-190A(V)1, AN/TRC-190(V)2, AN/TRC-190A(V)24, AN/TRC-190(V)3, AN/TRC-190A(V)3, AN/TRC-190(V)4, and AN/TRC-190A(V)4 radio terminal
TM 11-5895-1114-23-1 Mar AN/GSC-40 satellite communications terminal
TM 11-5895-1114-23-3 Mar AN/GSC-40 satellite communications terminal
TM 11-5895-1127-10-HR May AN/TSC-93A satellite communications
TM 11-5895-1128-10-HR May AN/TSC-85A satellite communications terminal

TM 11-5895-1214-10-1 May AN/FSC-91(V)2 and AN/FSC-91x(V)2 control element
TM 11-5895-1346-13 Oct 89 OM-73(V)/G modem group, MT-6446/G electronic equipment frame, C-11640/G modem controller, MK-1195 demodulator and MD-1196/G modulator
TM 55-1510-218-CL Jan Operator's and crewmember's checklist, C-12A/C/D
TM 55-1520-214-CL Dec 89 Operator's and crewmember's checklist, OH-6A
TM 55-1520-248-CL Nov 89 Operator's and crewmembers checklist, OH-58D
TB 55-2840-241-20-3 Jan Inspection of engine mounted fuel line clamps, OH-58C and H-6

Maintenance & Safety-Of-Use Messages

AMCCOM Maintenance Advisory MSG—Hoisting unit, truck mounted, SC 4910-95-CL-A51, AMSMC-MAE 132000Z Mar 90.

AVSCOM SOU-MSG-OH-58-90-01—Operational, Use of sling assembly, AMSAV-XSOF 151500Z Mar 90.

CECOM SOU-MSG-90-02-04—Maintenance Advisory, OE-354 quick reaction antenna, AMSEL-SF-SEP 231600Z Feb 90.

CECOM SOU-MSG-90-02-03—Operational, Advisory, AB-1309 Mast, part of the DGM, AMSEL-SF-SEP 231800Z Feb 90.

CECOM SOU-MSG-90-02-02—Advisory, Maintenance, AN/PMQ-3, -3A, -3B, -3C, and -3D wind measuring sets, AMSEL-SF-SEC 271300Z Feb 90.

CECOM SOU-MSG-90-03-01—Mandatory, Operational, OE-254 antenna ground, AMSEL-SF-SEC 201800Z Mar 90.

MICOM SOU-MSG-90-05—Advisory, Operational, Patriot antenna mast group, AMSMI-LC-AM 151500Z Mar 90.

TACOM SOU-MSG-A90-01—M1A1 tank and 120MM tank sabot ammo cartridges, AMCPEO-ASM 271200Z Mar 90.

TROSCOM SOU-MSG-05-90—Operational, M85 trailer mounted laundry unit, AMSTR-MES 152010Z Mar 90.

TROSCOM Maintenance Advisory MSG-90-03—Closed circuit refueling nozzle, Model 125-10000, manufactured by Tube-Alloy Corporation, AMSTR-MES 081915Z Mar 90.

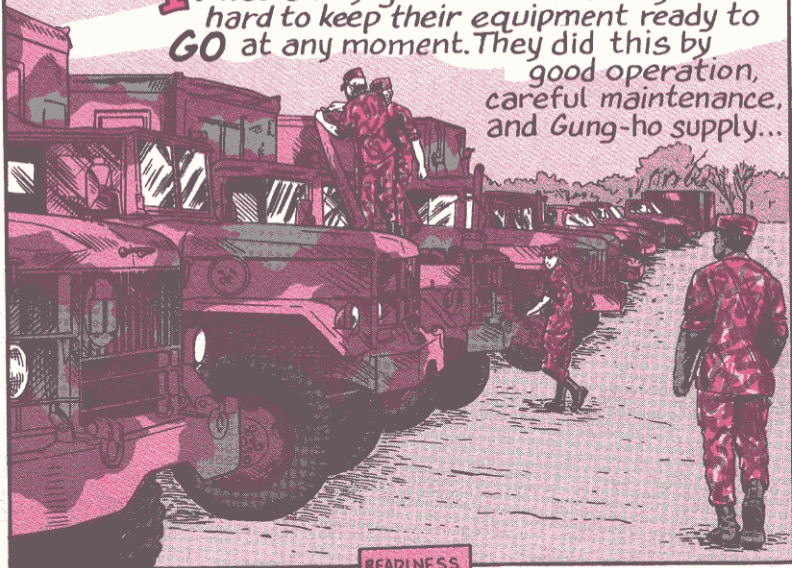
TROSCOM Maintenance Advisory MSG-90-04—Altimeter, wrist mounted, tolerances for the altitude chamber testing, AMSTR-MES 162045Z Mar 90.

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

How Free the Turn-in

Once upon a time, stationed in a faraway place, there was this outfit.

It was a very good outfit and they worked hard to keep their equipment ready to GO at any moment. They did this by good operation, careful maintenance, and Gung-ho supply...

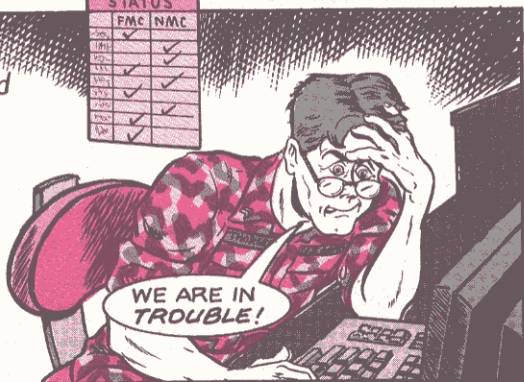


READINESS STATUS

	FMC	NMC
Gas	✓	✓
Oil	✓	✓
Water	✓	✓
Food	✓	✓
Medical	✓	✓
Tools	✓	✓
Spares	✓	✓

...and besides they were allowed free turn-in.

But one day things began to go wrong... and then they heard their supply support **GROAN!**





...asked
**CONNIE
RODD**,
who just
happened
to be
there
this
day!



YOU SEE! EVERY TIME "FREE TURN-IN" DAY HITS, WE GET MURDERED!
I'VE GOT ALL MY PEOPLE DOING NOTHING BUT SORTING STUFF THAT CAME IN ON THAT DAY!

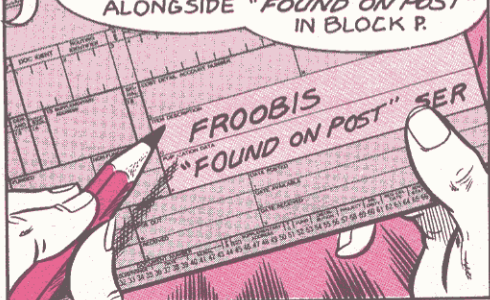


BUT ISN'T "FREE TURN-IN" COMMAND AND DON'T "FOUND ON INSTALLATION" ITEMS QUALIFY AS "FREE TURN-IN" ITEMS?

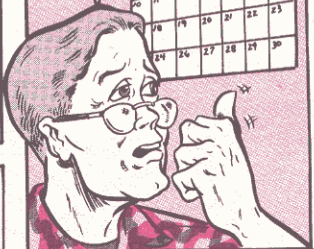
SURE, BUT THEY NEED TO TURN THEM IN ON DA FORM 2765-1 TO GET CREDIT. THEN SHOW WHAT THE ITEM IS IN THE ITEM DESCRIPTION BLOCK.

LIKE SO!

ALSO, ADD SER, FOR SERVICEABLE OR UNSER, FOR UNSERVICEABLE ALONGSIDE "FOUND ON POST" IN BLOCK P.



ALL THESE UNIDENTIFIED ITEMS HAVE PUT US 30 DAYS BEHIND SCHEDULE. IT TAKES TIME TO IDENTIFY THESE ITEMS AND GET THEM BACK INTO THE SYSTEM.



ISN'T IT YOUR JOB TO IDENTIFY AND RECHANNEL THESE ITEMS?

YES, BUT DUMPING UNIDENTIFIED ITEMS ON US DOUBLES THE WORK LOAD AND SLOWS THE WORK UP AND DOWN THE LINE.



So, Connie set out to help...



One Unit's EXCESS

is Another's SUCCESS

All these "EXTRA" items you've got
May just be the things that're HOT.
Tag them up, Turn them in
Help fill the Supply bin,
For issue to those who have NOT.

GREAT!
ANOTHER UNIT
TURNED IN THE PART
WE'VE BEEN
NEEDING!

**FREE
TURN-IN**

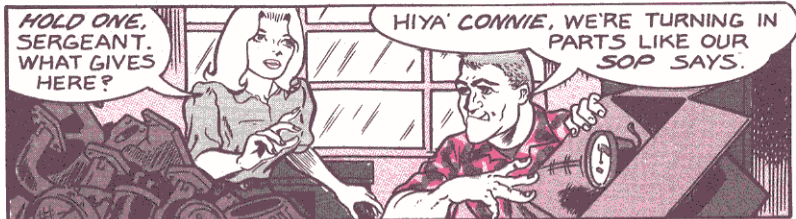
AUTHORIZED
IN THIS
COMMAND
BY ORDER
OF
C.O.

BE SURE TO

- ✓ IDENTIFY THE PARTS YOU TURN IN AS CLEARLY AS YOU CAN.
- ✓ HANDLE CAREFULLY SO PARTS WILL NOT BE DAMAGED IN TRANSIT.

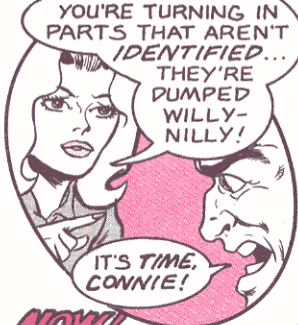
WE HAVE THE WORLD'S BEST EQUIPMENT ... *Take care of it*

IF YOU WANT TO DISPLAY THIS CENTERPIECE ON YOUR BULLETIN BOARD, OPEN STAPLES, LIFT IT OUT AND PIN IT UP.



HOLD ONE, SERGEANT. WHAT GIVES HERE?

HIYA' CONNIE, WE'RE TURNING IN PARTS LIKE OUR SOP SAYS.



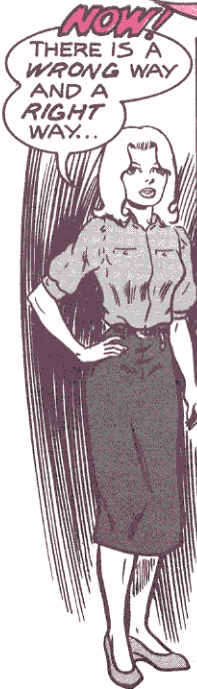
YOU'RE TURNING IN PARTS THAT AREN'T IDENTIFIED... THEY'RE DUMPED WILLY-NILLY!

IT'S TIME, CONNIE!

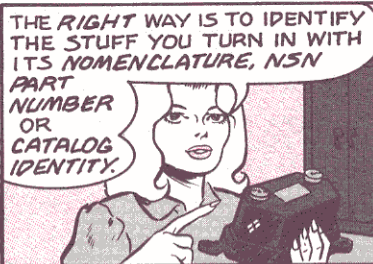


MY PEOPLE SPEND A BIG PART OF THEIR TIME DOING PAPERWORK TO GET PARTS WE NEED!

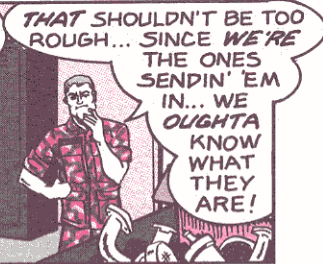
THE MOMENT IT TAKES TO IDENTIFY AN ITEM WILL SAVE TIME AND DOLLARS!



NOW!
THERE IS A WRONG WAY AND A RIGHT WAY...



THE RIGHT WAY IS TO IDENTIFY THE STUFF YOU TURN IN WITH ITS NOMENCLATURE, NSN PART NUMBER OR CATALOG IDENTITY.



THAT SHOULDN'T BE TOO ROUGH... SINCE WE'RE THE ONES SENDIN' EM IN... WE OUGHTA KNOW WHAT THEY ARE!



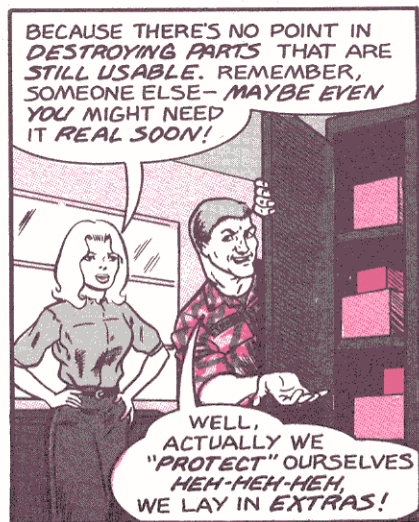
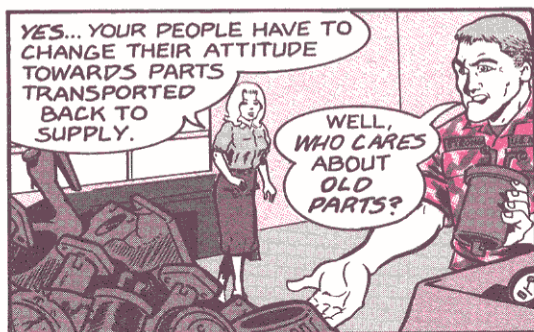
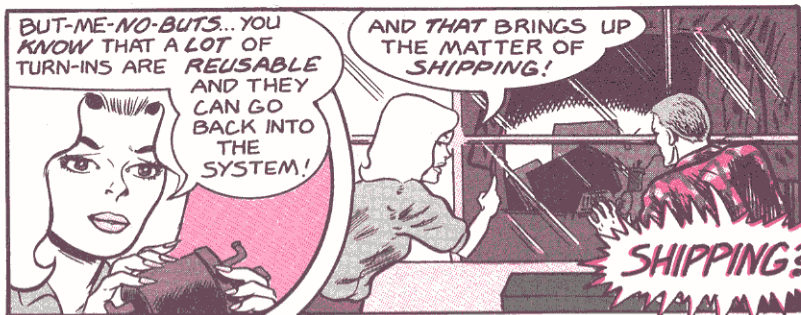
EVEN PARTS THAT YOU CAN'T PEG, YOU CAN ALWAYS JOT DOWN A DESCRIPTION, WHERE THEY GO... OR WITH WHAT MAJOR END ITEM THEY BELONG.

THAT'S EASY!

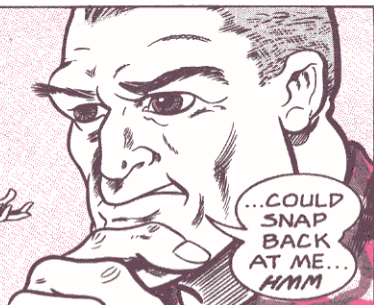


NEXT, WHEN YOU SEND IN PARTS... PROTECT AND HANDLE THEM WELL, SO THEY'LL BE IN CONDITION TO REISSUE!

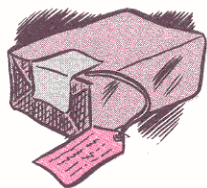
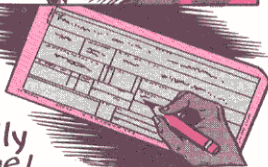
BUT...



SUPPORT STOCKS ON THE BASIS OF YOUR REGULAR DEMANDS! WHEN YOU ORDER MORE THAN YOU ACTUALLY NEED YOU CREATE FALSE DEMAND INFO WHICH CAN CAUSE SUPPORT TO UNDER-STOCK OR OVERSTOCK!



And so, after this was explained and they realized that fair play and teamwork were desperately needed... And that free turn-in isn't for kicks and convenience... it really saves \$\$\$\$... things began to change!



Parts came into supply easily identified (which cut out processing time.)

Parts came in well protected... so they were quickly restored to service (many had not even been taken out of their original waterproof packages.)

And outfits that had too much of an item SENT in their excess and requested actual needs, which helped support stock more realistically.

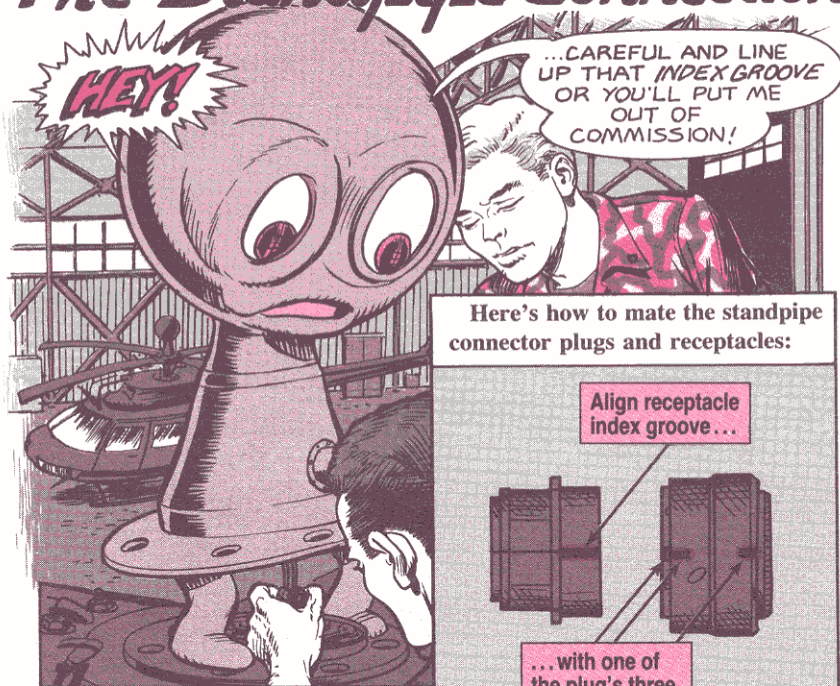
So, outfits that were hurting began to get their parts...

...AND SO IT CAME TO BE!

EASY, RIGHT?

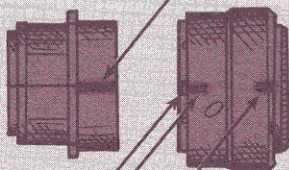


The Standpipe Connection



Here's how to mate the standpipe connector plugs and receptacles:

Align receptacle index groove...



...with one of the plug's three indicator stripes

- ⚙️ Align the index groove of the receptacle with one of the plug's three indicator and polarizing stripes.
- ⚙️ Engage the plug with the receptacle.
- ⚙️ Rotate the locking ring of the plug clockwise to lock the connector in place.

You can foul up the whole works when you install or replace the electrical connector of your OH-58D's standpipe electrical assembly.

That's because there are no installation instructions in TM 55-1520-248-23-3. Look at TM 9-1240-778-20, Task 3-23, P. 3-51 for instructions. But mating connector plugs and receptacles is no easy task even with instructions.

So connector pins get bent. Bent pins cause shorting of the standpipe wiring harness and the whole mast mounted sight assembly goes down for major repairs.

If you do it right, the plug's three indicator stripes will align perfectly with three similar stripes on the plug shell as the connector is locked into place.

Cancel Cyclic Chafing

THE STABILATOR SWITCH ISN'T WORKING!

A protruding safety wire pigtail or cotter pin can snare and shear wires at the base of your bird's cyclic sticks.

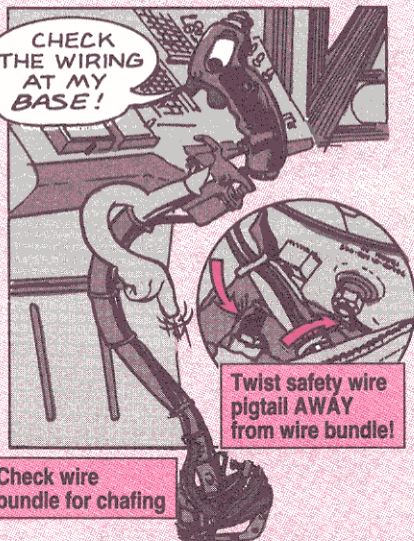
That leaves the manual stabilator slew-up switch useless.

So next chance you get, unzip the boot at the base of each stick and look at the wire bundles for chafing.

While you're there, make sure the safety wire pigtails on the forward and lateral stop bolts are twisted away from the wire bundle.

If any of the wires are damaged, repair or replace them according to Appendix F of TM 55-1520-237-23.

CHECK THE WIRING AT MY BASE!



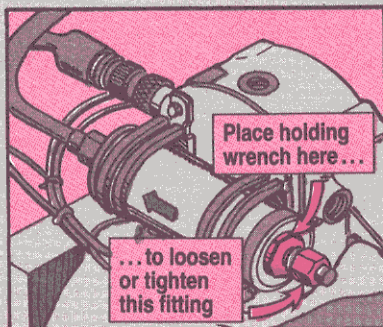
CH-47D...

Drip ... Drip ... Drip ... Drip ...

Some pressure fluid filters on CH-47D auxiliary power units spring a leak after the fuel lines are disconnected and then reconnected.

That's because some engine mechanics put their holding wrench on the opposite end of the filter when they loosen or tighten the fuel line fitting. This creates a spiral torque across the filter that cracks the welds at the ends of the filter.

Always place your holding wrench on the filter fitting **ON THE SAME END** of the filter that you're installing the fuel inlet tube.



And use a torque wrench to tighten the fitting so that you don't use more than 75 in-lbs of torque on the fitting.

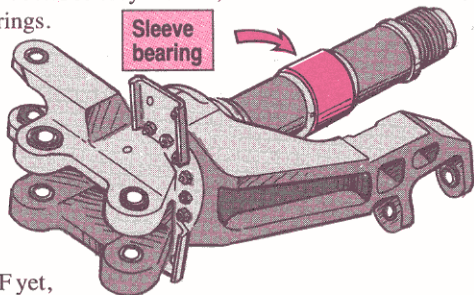
That'll stop that drip ... drip ... drip.

IT'S THE PITS



Forget what we told you about cleaning your Black Hawk's main rotor spindle sleeve bearings on Page 39 of PS 444. Use only cleaner, NSN 6850-01-239-0571, and water to clean the sleeve bearings.

Then look at the bearing for pitting. Replace the spindle if there are five or more pits of 0.030 inch diameter or greater within a 1/2 inch diameter circle or if one or more pits are larger than 0.050 inch diameter.



The cleaner's not on the AMDF yet, so order on a DD Form 1348-6 using RIC S9G.

Maintenance Information Message UH-60-89-MIM-02 has the word.

HIT Check Limits Extended

Health Indicator Test procedures for your Black Hawk's T700 engines are being changed to cut down on the number of flight abortions.

From now on, when you make the before-first-flight-of-day HIT check, you can still fly if the turbine gas temperature (TGT) is 5 degrees (C) or less from the HIT log limit. Just make the appropriate entry in the REMARKS block of DA Form 2408-13 and continue your mission. The word's in AVSCOM Msg UH-60-89-MIM-11.

Roll Your Own

Maintenance platforms let you mechanics get to places on your aircraft that are hard to reach.

They're mobile, adjustable, sturdy, safe and dependable—if you take care of them. Always inspect them before using them.

Here are some things to look for on the **B-4A PLATFORM**.

Here are some things to look for on the **B-1 PLATFORM**.

HAND RAILS AND PLATFORM RAILS
Broken, cracked or bent rails, corrosion.

WHEEL ASSEMBLY
Worn out swivel lock pin, brakes, wheel jack ratchet.

CASTER BRAKES
Set brakes and make sure there is no platform movement.

SWIVEL CASTERS
Broken, chipped or cracked wheels.

STATIC DISCHARGE REEL
Broken or missing alligator clips, frayed or damaged static wire, reel that won't turn.

FRAME
Cracks, bent rails, corrosion.

ROLLER CHANNELS, LADDER GUIDES, SCISSORS PIVOT POINTS—Dirt, grime.

PUMP RESERVOIR
Fluid level, leaks.

HYDRAULIC HOSES
Leaks, cracks, other damage.

LUNETTE ASSEMBLY
Bent, cracked or missing steering bar, tie rods, detent pins, tie rod pins, tongue.

ACTUATING CYLINDER
Leaks.

HANDWHEEL
Broken collapsible handle, binding or noisy when turned, no lubrication.

JACKSCREW
Cracks in bellows, noise or binding when operated, no lubrication.

TM 55-1730-223-13 has the lube and other inspection requirements for the B-1 platform and TM 55-1730-215-13&P has the same info for the B-4A platform.

FARE...

Hot Refueling Reminders

The Forward Area Refueling Equipment (FARE) system can keep your birds fueled and flying during field exercises.

But only if you follow this sequence of safety precautions before and after refueling each aircraft:

BEFORE

Carry the fire extinguisher from the ground rod to the side of the aircraft by the fill port.

Make sure the ground clip is attached to the ground rod. Connect the ground plug to the aircraft.



Wipe around the fuel receptacle with a clean cloth to remove dirt and dust.

Remove the fuel cap from the fuel receptacle.



Remove the dust cap from the fuel nozzle and connect the nozzle to the fuel receptacle.

FOLLOW THESE STEPS AND AVOID PROBLEMS FOR AIRCRAFT AND YOU!



AFTER

Shut off the fuel pump unless another aircraft is waiting for refueling.

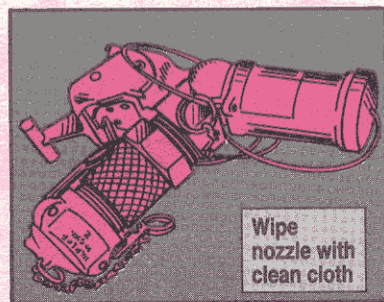
Set handle of fuel nozzle at NO FLOW.

Remove nozzle from fuel receptacle and cap the receptacle.

Wipe off the nozzle dust cap with a clean cloth and put it back on the nozzle.

Wipe the nozzle with a clean cloth and return it to standby away from the aircraft.

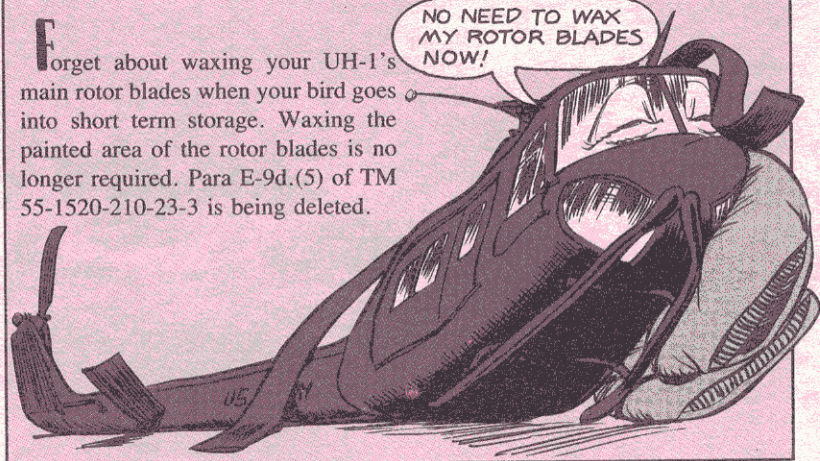
Disconnect the ground plug from the aircraft.



No Wax on UH-1 Rotor Blades

Forget about waxing your UH-1's main rotor blades when your bird goes into short term storage. Waxing the painted area of the rotor blades is no longer required. Para E-9d.(5) of TM 55-1520-210-23-3 is being deleted.

NO NEED TO WAX
MY ROTOR BLADES
NOW!



AH-64A Apache...

Turret Torque Tip

Even the simplest maintenance task can become a nightmare without the proper tools.

That's why installing your Apache's Pilot Night Vision Sensor (PNVS) turret assembly may seem like a bad dream.

It's just about impossible to torque the mounting screws to 20 lb-in with a standard torque wrench from your tool crib. There's just not enough room to use the wrench.

The tool you need is a screwdriver torque wrench, NSN 5120-00-931-8361. Your authority is Appendix A of CTA 50-970 until the tool is added to your TM's.

Aviation Messages

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

AH-64-90-01, SOF, Technical, All AH-64A, one time retorquing of APU fuel control system elbow union jam nut, 082130Z Feb 90.
OH-58-90-ASM-01, All OH-58A/C,

transmission mount adapter, P/N 206-032-509-5, 202100Z Feb 90.
AH-64-90-ASM-01, All AH-64A, main transmission diverter valve, 261800Z Feb 90.

CH-47-90-ASM-01, All CH-47D, calendar changes inspections and operating time for aircraft on PM/PMD, 262200Z Feb 90.

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

Strap 'em Into

TM 11-5820-667-12 and -20P are short on component NSN's for the LC-2 pack frame used to strap in your AN/PRC-25 and -77 radios.

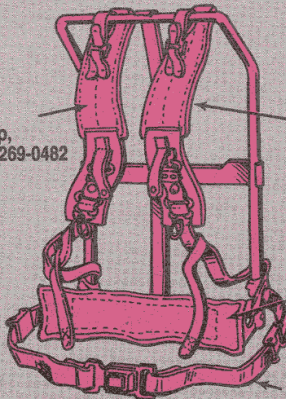
WHY ARE YOU CARRYING THAT RADIO?

I LOST MY RADIO SHELF. I'LL ORDER ANOTHER ONE WHEN I FIND AN NSN FOR IT.



GET WHAT YOU NEED WITH THESE NSN'S:

Left quick-release shoulder strap, NSN 8465-00-269-0482



LC-2 pack frame, w/straps NSN 8465-01-073-8326

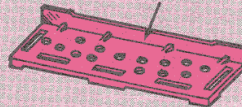
Right quick-release shoulder strap, NSN 8465-01-078-9282

Lower back strap, w/clamp NSN 8465-01-151-2891

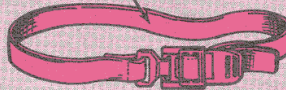
Waist strap, w/quick release buckle NSN 8465-01-075-8164

LC-2 Frame

Cargo support shelf, NSN 8465-00-001-6476



Cargo tiedown strap (2), NSN 8465-00-001-6477



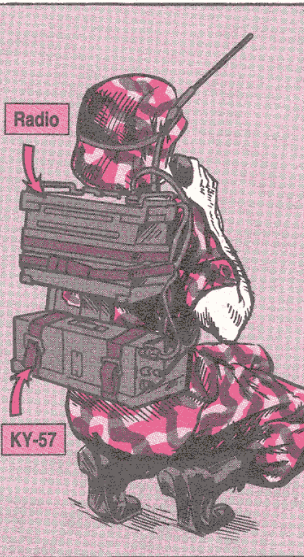
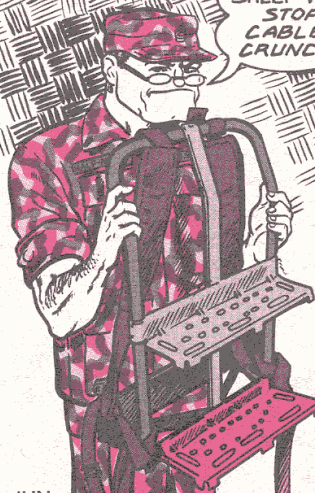
Make sure the tiedown straps are tight. If the shelf pops off the frame and the straps are loose, the radio could slip through the straps.

In a pinch, you can use lacing wire to tie the radio to the frame.

Secure Security Equipment

When the KY-57 security equipment is used with your radios, you'll need to get an extra shelf, NSN 8465-00-001-6476, and two more straps, NSN 8465-00-001-6477.

THE SECOND SHELF WILL STOP CABLE CRUNCH!

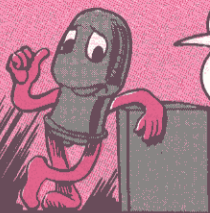


The extra KY-57 shelf and straps are authorized by TM 11-5810-256-10-2.

AN/MJQ-25...

Power Plant Lamp PN

There's no NSN for the lamp for the light indicators in the AN/MJQ-25 trailer mounted electrical power plant.



YOU CAN GET
A LAMP LIKE ME
BY ORDERING
IT ON
DD FORM 1348-6
USING
CAGE 58224
PNG9B(GR)
FROM
RIC A12.

AN/PVS-7A...

NVG Chin Strap

There's no NSN for the AN/PVS-7A night vision goggles chin strap. Order the strap on DD Form 1348-6 using CAGE 54490, PN 5007676 from RIC B16.

TA-312 Telephone Set...

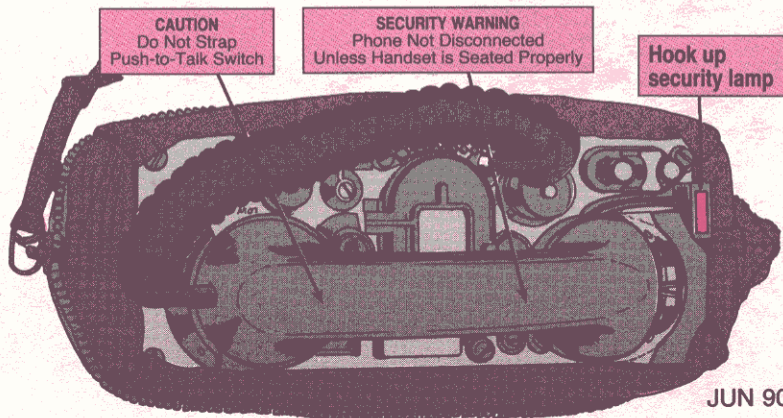
Label NSN's

Looking for the NSN's for the SECURITY WARNING and CAUTION labels for the H-60 handset which is part of the TA-312 telephone set?

Get the SECURITY WARNING label, which tells you the phone is not disconnected unless the handset is seated properly, with NSN 7690-00-877-6864.

The CAUTION label, NSN 7690-00-877-6865, directs you not to strap the push-to-talk switch.

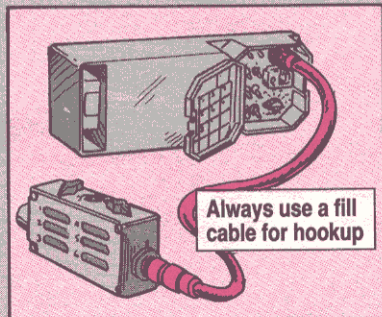
To jog your memory that your phone is secure when it is located in a sensitive area, add security lamp, NSN 5805-00-782-9210, like it says in Para 2-3.1 of Change 5 to TM 11-5805-201-12.



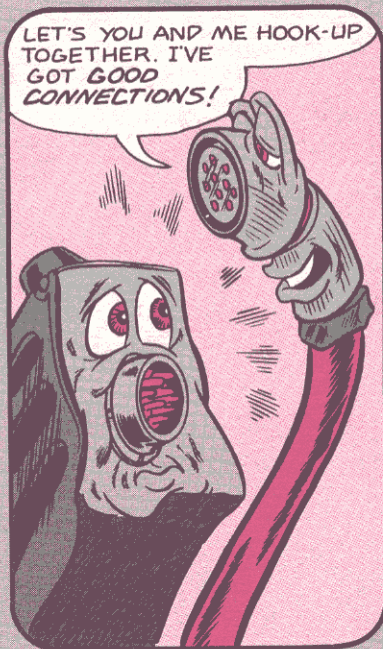
JUN 90

Fill Cables Saves Connectors

Use fill cable, NSN 5810-01-066-7587, every time you connect your fill devices, such as a KYX-15/15A, KYK-13 or KOI-18, to one another or to any COMSEC equipment.



If you try to make a direct hookup between two fill devices, or between the COMSEC equipment and a fill device, you can bend or break pins in the connectors. Then you won't be able to encrypt or decrypt your message.



Here are some **DO'S** and **DON'T'S** when you use the fill cable:

DO—Look at both connectors on the fill cable for damaged or missing contacts. Also eye the connectors on the fill device and the COMSEC equipment for bent or missing pins.

DO—Check the O-rings, NSN 5330-00-905-6032, in both connectors of the fill cable. Make sure they are in place and show no signs of wear.

DON'T—Use spit to lubricate the O-rings. To make the cable connector easy to install, put a light coat of lubricant, NSN 6850-00-177-5094, on the O-ring.

To apply the lubricant, put a dab on your fingertip and cover the O-ring.

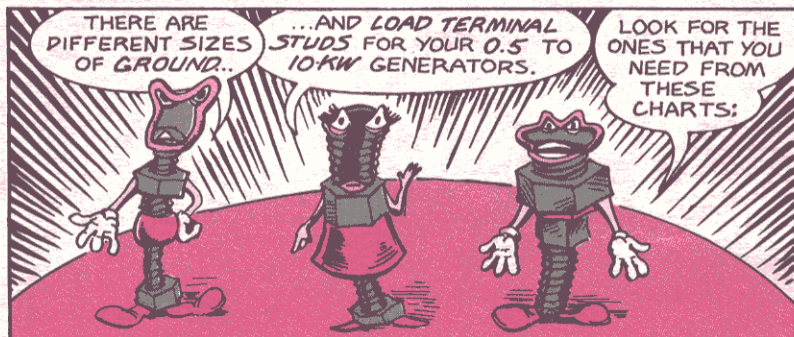
DO—Line up the flat surface of the cable connector with the red dot on the fill connector of the equipment when you connect the cable.

Then press in and turn the connector clockwise.

Never use force to snug up the connector.

DON'T—Forget to read TM 11-5810-292-13&P to get more information on using fill cables with fill devices.

Load and Ground Terminal Studs



GED Generators

KW Size	Load Terminal Stud NSN PN	Wire Size (AWG)	Ground Terminal Stud NSN PN	Wire Size (AWG)
0.5 60-Hz 400-Hz 28-VDC	5940-00-958-0349	10	5940-00-926-9827	6
1.5 60-Hz 28-VDC	5940-00-958-0349 13208E5820-6 (97403)	10 6	5940-00-958-0349	10
3.0 60-Hz 400-Hz 28-VDC	5940-00-958-0349 5940-00-958-1214	10 2	5940-00-952-2827 5940-00-952-2827	10 10
5.0 60-Hz 400-Hz	13211E6908 (97403)	6	13208E5820-6 (97403)	6
10.0 60-Hz 400-Hz	5940-00-958-1214 5940-00-901-0287	2 2	13208E5820-6 (97403)	6

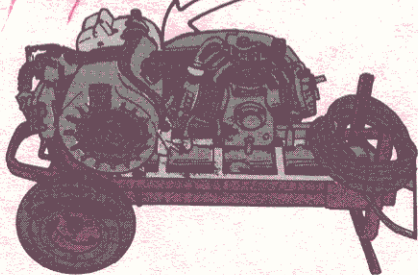
DED Generators

KW Size	Load Terminal Stud NSN PN	Wire Size (AWG)	Ground Terminal Stud NSN PN	Wire Size (AWG)
5.0 60-Hz	5940-01-009-4763	2	5940-00-234-3383	6
10.0 60-Hz 400-Hz	5940-01-009-4763	2	5940-00-234-3383	6

5-CFM Compressor...

SPARK STOPPER

You can use a spark arrester on the Mil Std engine of your 5-CFM compressor to prevent stray sparks. That's a SMART suggestion from SFC Wayne K. DeBoc.



Add spark arrester to keep you safe!

The compressor uses the same engine as the 1.5-KW generator, so spark arrester, NSN 2990-01-032-0755, fits the compressor, too.

The arrester prevents sparks and keeps you safe as you use the compressor in the field to inflate tires.

NSN for Stretch Tiedowns

If you're looking for rubber tiedown straps to hold down packs, bundles, canvas covers and other gear, look no further.

Here's a list of straps with S-hooks, costing between 45 and 58 cents, that are authorized by Appendix A of CTA 50-970:

NSN 5340-	Length, inches	Stretch, inches
00-340-0980	10	15-20
01-029-9084	15	20-30
01-030-3098	21	28-42
01-029-9085	31	36-42

Get Tougher Fuel Tank

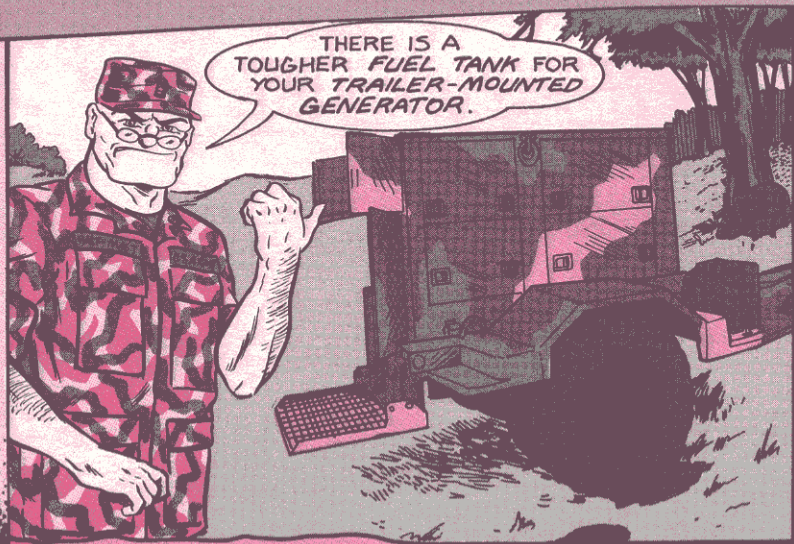
Dear Half-Mast,

We have six trailer-mounted generators that have plastic fuel tanks. These tanks leak around the filler neck each time they are filled. They also buckle and bend out of shape.

I have tried replacing the gasket between the filler neck assembly and the top opening of the tank. It still leaks.

Can we replace this tank with a metal one?

SFC T.B.B.



Dear Sergeant T.B.B.,

No. The metal tank is no longer available.

But you can get a better plastic tank with NSN 6115-01-254-0407. Its inlet nozzle is a part of the tank, which stops the leaking problem. Also, the new tank has reinforced corners to keep the tank from buckling.

Half-Mast

Mix on Battery Mix

WE'RE
THE GUYS
TO USE WHEN
THE WEATHER
IS 'HOT'...

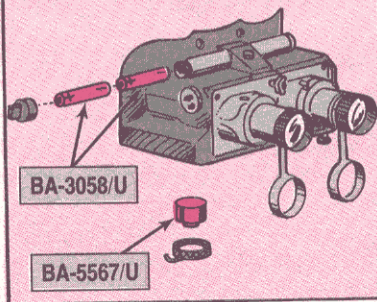
...AND IF HE
WORKS WITH US
HE'LL SURELY
SHORTEN ALL
OF OUR LIVES.

You'll shorten the life of your BA-3058/U and BA-5567/U batteries if you use them together in your AN/PVS-5B or -5C night vision goggles.

Putting both battery types in your goggles draws off power and drops the efficiency of the night sights.

SIGH,
I'LL COME
BACK WHEN
THE COLD
WEATHER
HITS.

Do not mix 'em!



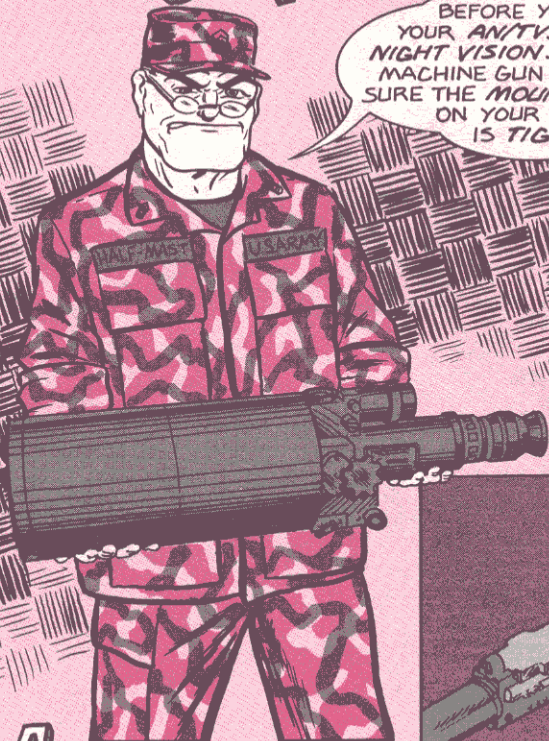
Besides, there's a chance the BA-5567/U will leak and damage the goggles. You can tell if it leaks. It has a foul smell.

For everyday use during hot and mild weather, use the BA-3058 batteries. They give the best, most economical night vision device operation.

Use a BA-5567/U only when required for cold weather. BA-3058's do not work well below freezing.

Snug Up Mount Bracket

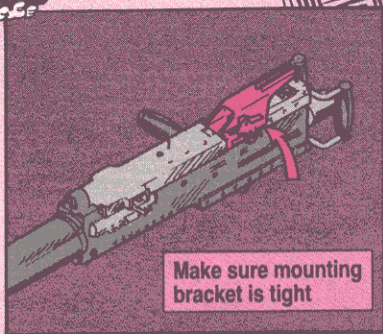
BEFORE YOU PUT YOUR AN/TVS-2B OR-5 NIGHT VISION SIGHT ON YOUR MACHINE GUN OR RIFLE, MAKE SURE THE MOUNTING BRACKET ON YOUR WEAPON IS TIGHT!



A loose bracket will damage your night sight and weapon.

If you're attaching a TVS-2B to your weapon, use one of these mounting brackets:

Item	NSN 5855-00-
M2 machine gun	911-0703
M40 recoilless rifle	189-6084

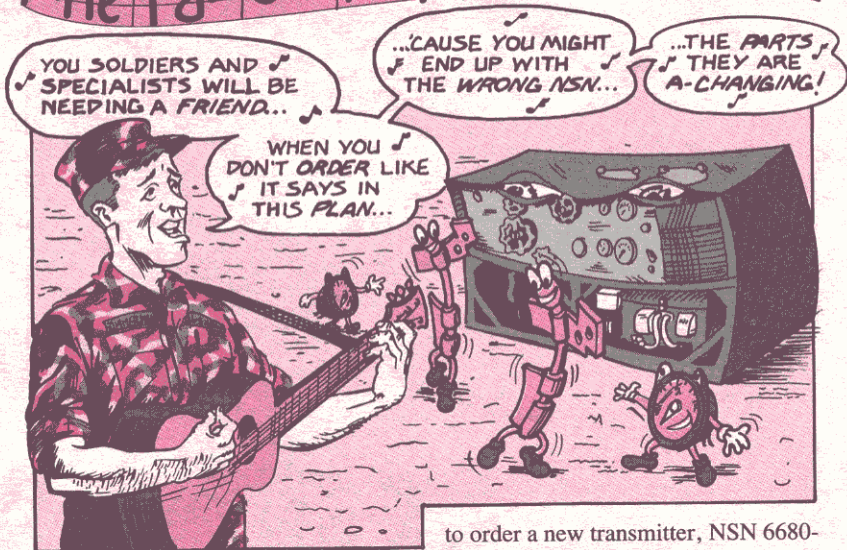


Make sure mounting bracket is tight


These brackets are listed in TM 11-5855-202-23P.

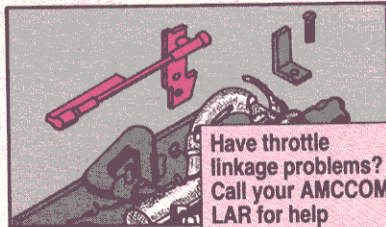
If you're attaching a TVS-5 to your M2 machine gun, use NSN 5855-01-045-5482 for the mounting adapter. It's listed in TM 11-5855-214-24&P, but without an NSN.


The Parts They Are A-Changing



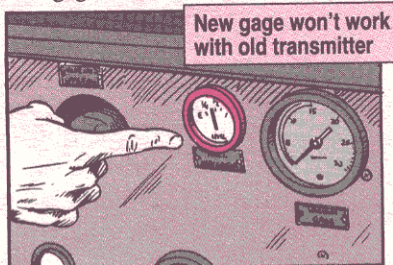
There are a few parts and PM changes you M12A1 decon repairmen need to make note of:


 The throttle linkage assembly (Item 41, Fig C-14, TM 3-4230-209-20&P) has been replaced by a new assembly, NSN 4230-01-129-3106. The new assembly can interfere with the Bendix or Bendix/Zenith carburetors.




 If your M12A1 has a serial number below 587-869, you will need

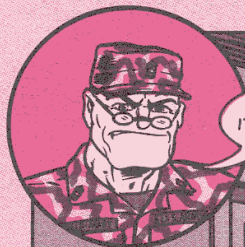
to order a new transmitter, NSN 6680-00-234-2111, when you replace the fuel gage, NSN 6680-01-106-0039.



 Avoid improperly adjusting the M2 heater pressure relief valve. That leads to an explosion. Get your support to install a new tamper-proof valve, NSN 4820-00-901-1946.

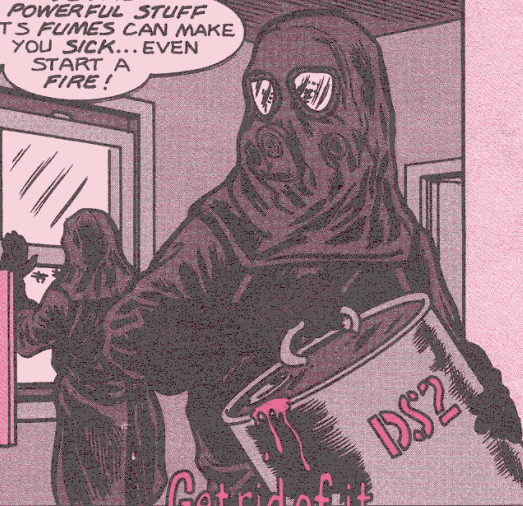
 A band clamping tool, NSN 5120-00-359-6587, is available to help you replace hose clamps.

DS2 Dos and Don'ts



DS2 IS POWERFUL STUFF IT'S FUMES CAN MAKE YOU SICK...EVEN START A FIRE!

KEEP CLEAR WORKING WITH DS2



Get rid of it like this:

NBC NCO's need to follow certain rules for storing and disposing of DS2.

Never store DS2 with STB, acids or oxidizers unless you can separate them by at least five feet and put a splash-proof barrier in between. Otherwise, you risk a fire.

As long as DS2 containers are kept sealed, DS2's will last indefinitely. Once air hits DS2, though, it's good for only 48 hours. But that doesn't mean it still can't burn or make you sick. If you find a leaking container, don't use the DS2.

Do Open all doors and windows.

Make sure everyone stays away from the area where the DS2 is.

Do Wear a protective mask, long rubber gloves, and a full-length rubber apron.

Never touch a leaking container or wet spot without protective equipment. If DS2 does get on your skin, blot it off and rinse with lots of water until the soapy feeling is gone. Seek medical help.



Do Repack leakers in one of the following drums:

Size	NSN 8110-00-
7 gal	254-5714
27 gal	082-2625
57 gal	082-2626

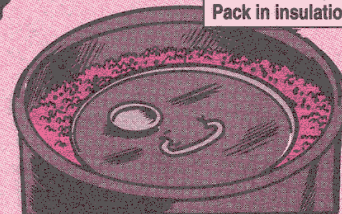
If you use an old drum, make sure it's clean, dry, and in good condition.

One 1 1/3-qt container can be packed in any of these drums. Two 1 1/3-qt containers can be packed side-by-side in a 27-gallon or larger drum. One or two 5-gal containers can go in a 57-gal drum.

Pack vermiculite insulation, NSN 5640-00-801-4176, around the containers. For the 1 1/3-qt ones, put a

minimum of 2 inches around the sides of the container and 5 inches on the top and bottom. For the 5-gal container, put at least 6 inches around the sides and 2 inches on the top and bottom. Seal the drum.

Pack in insulation



Write on the drum's outside HAZARDOUS WASTE and the number and size of the leakers inside.

If any DS2 has leaked out, neutralize it with sodium bisulfate, NSN 6810-00-270-9984. Soak up the DS2 with vermiculite. Put the vermiculite in a drum and write DS2 SPILL WASTE and HAZARDOUS WASTE on the outside. Seal the drum.

Store the drums in a cool, dry place until your local environmental officer can have them picked up.



Keep Rocker Arms Rocking

GEE...I'M GOING TO BE OUT OF ACTION A LONG TIME. I'M AFRAID I'LL FREEZE UP FROM CORROSION!

BUT WHAT CAN I DO?

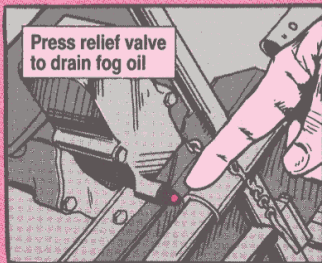
WAIT! A LITTLE 30W OIL CAN PREVENT THAT!

Dear Editor,

If the M3A4 sits for more than six months, the rocker arm pistons corrode and freeze in place. Rocker arms that do not move burn up the engine. A good way to keep the pistons moving is to cycle with 30-weight engine oil before storage.

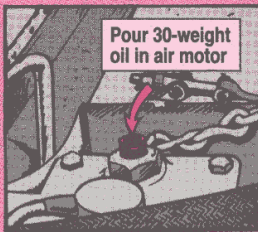
Here's how:

1. Drain the fog oil.



Press relief valve to drain fog oil

2. Disconnect the fog oil line and pour 4 ounces of 30 W oil in the air motor.



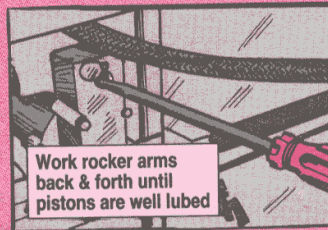
Pour 30-weight oil in air motor

3. Make sure the fog oil pump drain cock is open.



Open drain cock

4. Work both rocker arms back and forth with a screwdriver until the pistons are well lubricated.

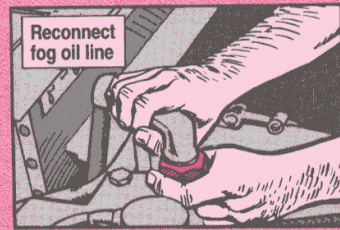


Work rocker arms back & forth until pistons are well lubed

5. Reconnect the fog oil line and close the drain cock.

Be sure not to cross thread connections.

When you're ready to operate again, drain the oil and replace it with fog oil.



Reconnect fog oil line

SFC Mickey Humble
Ft Polk, LA

(Editor's note: A rocking good idea. It's also a good idea to prime the fog oil pump with fog oil before start up if the M3A4's been out of action. If the engine runs just over two minutes without fog oil, the pump's damaged.)

Air Gage NSN Wrong

The NSN for the smoke generator air pressure gage (Item 18, Fig 1) in TM 3-1040-276-23P is wrong. Use NSN 6685-01-277-2865 instead.

AMDF...

BYTES^{of} AMDF

You PLL clerks can use the telephone lines, a modem and your computer to get up-to-date information from the AMDF, I&S, SB 700-20 and other reference files on microfiche.

Just log on to the Remote Terminal AMDF Inquiry System (RTAIS) and you'll get an answer to your supply question.

You don't have to be a computer whiz, either. The computer tells you how to make a request and it defines the system codes for you.

For information on how to get access to RTAIS, call the USAMC Catalog Data Activity at:

**DSN (formerly AUTOVON)
977-6643/7136
Commercial (717) 770-6643/7136
or write
Director
USAMC Catalog Data Activity
ATTN: AMXCA-PP
New Cumberland Army Depot
New Cumberland, PA 17070-5010**

Tools...

THE CONSTRICTOR PARTS

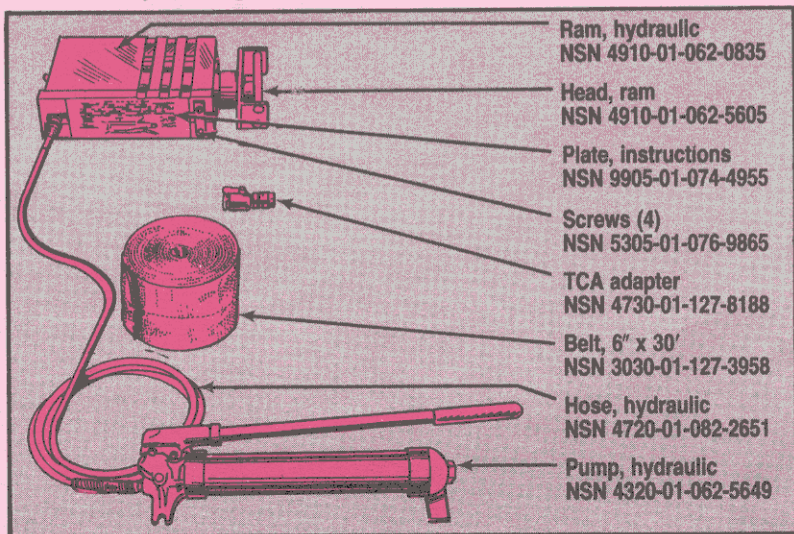
COMMIE... THIS CONSTRICTOR'S BROKEN, AND THERE'S NO PARTS LIST!

HERE ARE THE PARTS!



There's no parts listing for the tire constrictor, NSN 4910-01-038-3865, that's in the No. 1 Common and No. 2 Common shop sets. SC 4910-95-CL-A74 and -A72 only list the constrictor. There's no need to get a new constrictor when you only need parts.

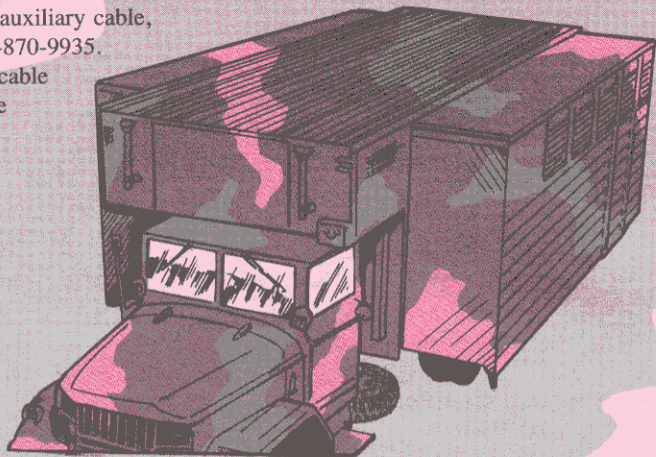
Here's what you can get:



M292A5 Power Cable

For electrical power cables for the M292A5 expansible van, you need a 100-ft power cable, NSN 2590-00-679-1423, and a 39/4-in auxiliary cable, NSN 2590-00-870-9935.

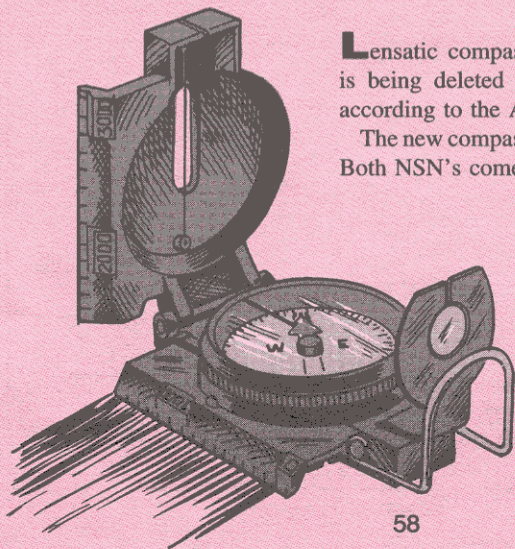
The auxiliary cable connects to the generator and the 100-footer connects to the van.



Lensatic Compass NSN Change

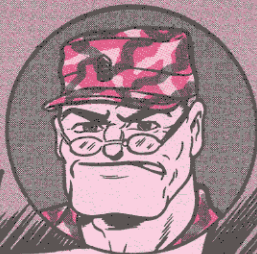
Lensatic compass, NSN 6605-00-151-5337, is being deleted with no replacement listed, according to the AMDF.

The new compass is NSN 6605-01-196-6971. Both NSN's come under LIN E63317.



**NSN 6605-01-196-6971,
replaces the old compass**

Driving Record Error



Dear Half-Mast,
Sometimes we receive a DA Form 348, Equipment Operator's Qualification Record, with incorrect or missing entries. Since the DA Form 348 is a permanent record, how can the motor sergeant show that the DA Form 348 is wrong?

Mr. K.E.P.

Dear Mr. K. E. P.,

Just line through the incorrect information and put your initials beside the line. Add the correct entry on the next available line or space.

Make a Memorandum For Record (MFR) stating what the error was and who corrected it. Attach the MFR to the corrected DA Form 348.

If the DA Form 348 has a missing entry, put that information on the next available line and attach an MFR to the 348.

Half-Mast

SECTION III - PERFORMANCE RECORD

(List chronologically as "credits" - awards, training, retraining, testing, retesting, roadtest, permit renewal, relicense, etc; and as "debits" - accidents, arrests, violations, warnings, revocations, suspensions, etc.)

DATE	CREDITS	DEBITS	TYPE OR NATURE	ACTION TAKEN
23 Oct 89	X		DRF. DNG. CASE	COMPLETED WEEK-LONG SAFETY COURSE, FT BENNING, GA
27 Oct 89			VIOLATION	RAN STOP SIGN
27 Oct 89		X	VIOLATION	SPEEDING, FT BENNING, GA. FINED IN MAG. COURT

Initial beside incorrect entry

PERFORMANCE RECORD (EXCEPT AIRCRAFT)

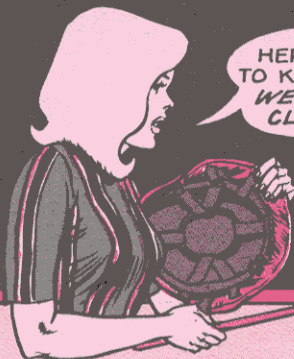
Reporting agency is Office of the Deputy Chief of Staff for Personnel.

(Extract from personnel file to maintain at operating level.)

For use of the
DA FORM 348
1 OCT 86

Wash the Webbing, Too

Your Kevlar helmet gets dusty, greasy, grimy and dirty inside and out. When you clean your helmet, be sure to wash the webbing.



HERE'S HOW
TO KEEP YOUR
WEBBING
CLEAN!

- Take off the cover and sweatband.
- Place your hand underneath the webbing to lift it up. No need to remove the screws that hold it to the helmet.
- Spray with detergent, NSN 7930-00-926-5280. Never put pine oil on the webbing.
- Scrub with a stiff bristle brush, like NSN 7920-00-061-0037.
- Rinse.
- Let dry.

Packaging Made Easier

When you return items for reissue or repair, you can make your packaging task easier with a book called "Packaging—The Basics."

This book contains a world of packaging information and is a must for every supply room.

It shows what equipment or tools you need to complete your packaging job with instructions on how to order or make them.

There's a list of packaging publications that gives a short explanation of what's in them.

TO GET A COPY
WRITE TO...

...OR CALL...

US Army Materiel Command
Packaging, Storage and
Containerization Center
ATTN: SDSTO-TM
Tobyhanna, PA 18466-5097

AUTOVON 795-7679
COMMERCIAL (717) 894-7679



M151-Series Brake Shoe Alert

Brake shoes made under contracts DAAE07-87-C-0839 and DAAE07-86-C-0755 are duds. Shoes, NSN 2530-01-061-7326 and 2530-01-060-7172, can get somebody killed. Pull the wheels on all 1/4 tonners and look at the brakes shoes. On bad shoes, the rim is just tack welded to the web. Also, PN 62412 is stamped on the web. TACOM SOU 90-3 has the word. Get a copy from your DS, MAIT, or TACOM LAR.

Unit of Issue Changes

When you order items from Federal Supply Class (FSC) 5940—lugs, terminals and terminal strips—pay close attention to the unit of issue. In many cases the unit of issue has been changed from EA to HD. If you're not careful, you could wind up with 10,000 items when you thought you were ordering only 100.

Searchlights Out for CEVs

AN/VSS-2 and -3A searchlights are no longer reportable or supportable items for the M728 CEV. These searchlights should be removed and disposed of as directed by DA Pam 710-2-1. Removal information is available from your local AMCCOM Logistics Assistance Representative or from TB 43-0001-36-5 (Apr 90) in Chapter 8.

1½-ton Trailer Bearings

You now get wheel bearings for M103A1/A2, M105A1, and M107A1 trailers as sets. Use NSN 3110-00-087-9881 to get the outer cone and roller bearing set. Get the inner bearing set with NSN 3110-00-087-3930.

M119 Van Air Chamber NSN

You're in for a disappointment if you order a brake air chamber with the NSN listed for Item 4 in Fig 25 of TM 9-2330-210-14&P. The part number and NSN shown get a spring. Order the air chamber with NSN 2530-00-797-9039. The part number is 7979039.

AVLB Crossing Caution

The M1A1 tank with T158 track is military load class 68... too heavy to cross on a completely spanned class 60 armored vehicle launched bridge safely. TACOM AMCPM-M113/M60 Msg 162222Z Feb 90 (SOU 90-07) tells you how to make the crossing safer. Get a copy from your DS or local TACOM Logistics Assistance Representative.

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

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

SUMMER TAKES ITS TOLL

**Be Sure Cooling Systems
Fan Belts
Radiator Hoses
Water Pumps
And Fans...**

...Are Ready For

SUMMER HEAT!

**WE'RE
READY!**

PIN 064836-000