

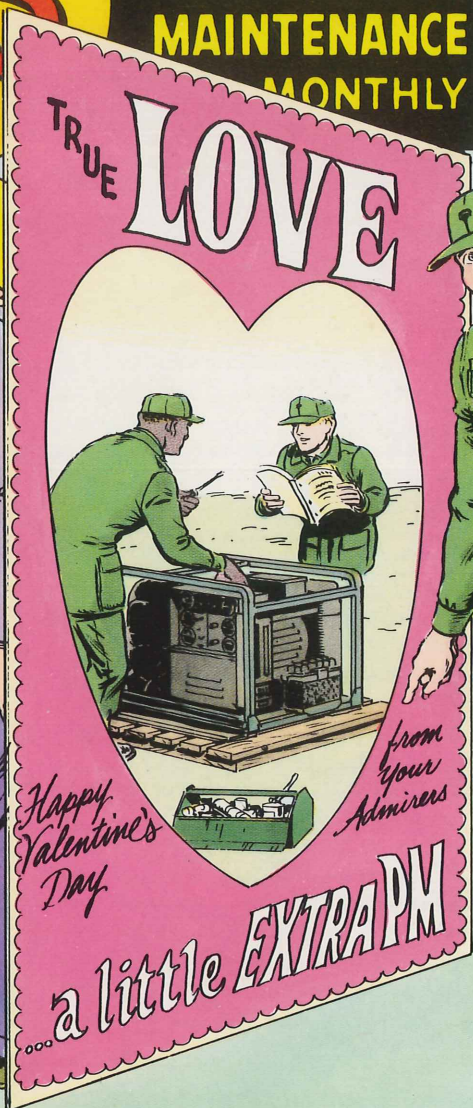
Issue 351

PS

February
1982

THE
PREVENTIVE
MAINTENANCE
MONTHLY

Let
another
soldier
read
this
copy.



MURPHY
ANDERSON

Preventive Maintenance...

A Little Extra? No, A LOT!

OH, M'GOSH-- WE'RE GONERS!

SHAPE THIS OL' HEAPS IN, IT'LL NEVER GET US OUTTA THIS!

I PROMISE FROM NOW ON I'LL TAKE CARE OF YOU LIKE I DO MY OWN CAR!

HE NEVER SEEMED TO UNDERSTAND THAT TODAY'S PREVENTIVE MAINTENANCE MAY WELL BE TOMORROW'S LIFE-SAYER!

"This Army equipment doesn't hold up very well. Parts we've replaced over 'n' over almost never need replacing on civilian equipment. Why, on my own car..."

Hold it right there! A lot of people in the Army are "standing too close to the woods to see the trees," as the old saying goes. They should refocus on the special demands put on Army equipment—and then refocus on the special needs that result from those demands.

Military-design equipment is exposed to the worst conditions you can imagine:

- Bouncing and twisting over rough terrain...
- Choking dust and sticky mud...
- Searing heat and brittle cold...
- Hub-deep water and repeated hosing at the washrack...
- Some operators and maintenance personnel whose training—and attitudes—fall something short of ideal.

And then, despite all of that, the equipment is expected to perform at peak when the need arises.

It's impossible—so far, at least—to design equipment that can take all of that abuse and still do a top job without extra attention—a lot of extra attention—from operators and maintenance personnel. True, progress is being made—better lubes, stronger metals, solid state electrical and electronic components. But parts still loosen, bend, break, leak, rot, dry out and wear faster than seems reasonable when compared to your own bucket o' bolts.



PS
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MAINTENANCE
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ISSUE NO. 351 FEBRUARY 1982

GROUND MOBILITY

Extra PM	1	Winch TM	7
Tires	2-5	M886/M893	
MK-1244 Kit	5	Ambulances	8
M887 Truck Tires	6	Oil Sampling	8
Fuel Nozzle	6	U-Joint Wear	9
M880-Series Trucks	7	Camouflage HOTLINE	9
Engine Smoke Tip	7	Fire Truck Heater	9

FIREPOWER

T142 Track Torque	10	M30 Mortars	18, 19
Gun Tube Care	11	P5 Back Issues	18
Tank Ammo Tubes	12	M224 Mortar	20
Howitzer Caution	12	M2 MG Stoppag	20
Fire Extinguisher	13	M60 Gas Cylinder	21
M113 PC's	13, 16, 17	M28-Series Spring	22
Tank Oil Coolers	14	M16A1 Rifle	22, 23
Mortar Bearings	14	M203 GL	23
Pubs Update	14	.45-Cal Pistol	24-25
Tank Water Warning	15	TOW Battery	26-27
Tank Engine Shroud	15	Vulcan ESC	27

AIR MOBILITY

U-21 Engine Tool	37	AH-1S	42, 44
UH-1, UH-60A	38-41, 45	CH-47 Rotor Head	42
AIMI	42	First Aid Kits	45
OH-58	42, 43, 45	Compass NSN	45
Plexiglass Cleaning	42	Warning Streamers	45
OHA Hydraulic Fluid	42	Safety-of-Flight Msgs	45

COMMUNICATIONS

AN/VIC-1 Intercom	46-49	AB-22 Mast	51
AN/GRC-46 RATT	50-51	Pair-26 Cable	52
OE-254 Antenna	51	AN/PVS-5 Goggles	53

TROOP SUPPORT

New Publications	37	350-GPM Pump	57
Packin' PM	29-36	10-KW Generators	58
NBC Films, Tapes	54	Mil Std Engines	59
M17/M17A1 Mask	55	Small GED	
Shoestring Tip	55	Generators	59
Mask Carriers	56	Warranties	60
Mask Cleaning	56	Folding Cot Parts	61
		DA Form 2408-9	62-64

PS wants your ideas and contributions, and is glad to answer your questions. Name and address are kept in confidence. Just write to: **MSG Half-Mast PS Magazine Lexington, KY 40511**

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THINK ABOUT IT!



MOBILITY Retreading Saves Dough!

THIS TIRE'S HAD IT, BONNIE...

MAYBE NOT, SOLDIER! USE THIS TREAD DEPTH GAGE...

IF IT'S GOT ENOUGH TREAD LEFT, MOST TIRES CAN BE RETREADED...

...AND MADE AS GOOD AS NEW-- OR BETTER!

P-s-sst! Yeah, you! Wanna save Uncle some dough? 'Course you do, since Uncle's dough comes out of your back pocket. All you gotta do is report your tires when they're ready for retreading.

When you report 'em in time, support can send your tires off for a new tread. If you wear 'em down too much, tho, the tires get scrapped, and the Army has to buy new tires to replace 'em—spending dollars needed for other things. Retreading saves oil, too!

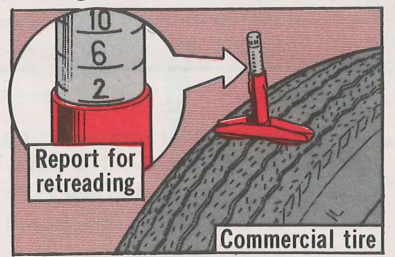
Retreaded Tires Save Money

Wonder how much money you can save by using retreaded tires? Well, it'll vary in different parts of the country and the world, but here're some examples:

Tire	Cost new	Retread
7.00x16, 6-ply NSN 2610-00-678-1363	\$33.30	\$24.31
9.50x16.5, 4-ply steel radial NSN 2610-01-011-8216	\$77.22	\$27.13
9.00x20, 8-ply NSN 2610-00-262-8677	\$95.18	\$58.45
11.00x20, 12-ply NSN 2610-00-262-8653	\$142.00	\$92.54

When to Report?

Military-design truck tires are ready for retreading when they're worn down to $\frac{4}{32}$ -in tread—at any point. Commercial-design tires are ready for retreading with $\frac{2}{32}$ -in of tread remaining.



Tires may not always wear evenly, tho. If your tires are overinflated, the center of the tread wears out first. If they're underinflated, the edges go first. Check the pressure during your PMCS, and help your tires last longer.



Your tires will also wear unevenly if your shocks are bad, or if the alignment is out of adjustment. This will cause one side of the tire to wear down first, or worn spots to show up.

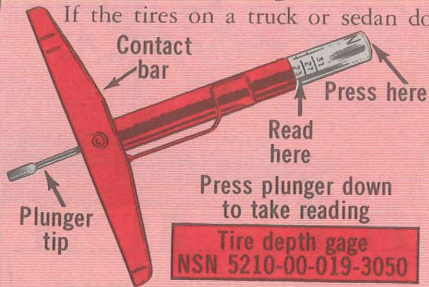
If your tires are wearing unevenly, report that. If you get what's causing it fixed, your tires'll last longer and save dough!



Check the Tread

You can use tire tread depth gage, NSN 5210-00-019-3050, to check tire wear. It's shown in Fig 2-3 of TM 9-2610-200-20.

If the tires on a truck or sedan don't measure up, report 'em.



When you see these solid bands of rubber across the tread, tire is ready for retreading

You don't even need a gage for those truck or sedan tires with built-in wear bars. If you can see solid bars of rubber across the tire, report it!

Check out Para 2-1i of TM 9-2610-200-20 for the word on when to retread. Fig 2-4 of the TM shows where to measure the tread depth, and Figs 2-6 to 2-9 show different kinds of wear.

"New" Retreads

Never turn up your nose at having retreads on your vehicle. The Army says retreads are as good as new tires. The word's in AR 750-36, Rebuild and Retread of Pneumatic Tires.

You can use retreads on everything except Goers and the front of buses. Buses are covered by AR 750-36. The word on Goers is TACOM Msg DRSTA-WG 271500Z Jul 79.

If you have a retread that doesn't do as well as new, report it. Your supervisor may want to submit an Equipment Improvement Report (SF 368) to US Army Tank-Automotive Command like it says in Chap 12 of TM 38-750.

Make 'em Last

Give your tires—new or retread—all the TLC your -10 TM calls for. Take care of your tires. They'll run a lot longer and save bunches of dough. When you get your tires on report for retreading, you save more than getting "just a few more miles" out of them.

For more info on taking care of your tires, check out TM 9-2610-200-20, Organizational Care, Maintenance and Repair of Pneumatic Tires, Inner Tubes and Radial Tubes.



New & Retread Tires...

They Can't H-e-e-a-a-r You!

THAT'S THE THIRD TIME THIS WEEK! WHY DOESN'T SOMEBODY DO SOMETHING ABOUT THOSE LOUSY RETREADS?

DO YOU HEAR SOMEBODY HOLLERING ABOUT BUM TIRES?

MAYBE -- BUT WE HAVEN'T GOT ANY EIR'S!



Bum tires—new or retreaded—are a bummer! The Army pays for good tires. You should get good tires. If you don't, the headshed wants to know about it. Then something can be done about it.

But just hollering down a well about defective tires won't do anybody any good—you or the Army. You need to feed the right poop to the headshed.

When you grab a Standard Form 368 to put thru an EIR, pinpoint the exact problem. Get out your copy of TM 9-2610-201-14, Standards And Criteria For Technical Inspection And Classification of Tires.



Then identify the defective tire—carefully and completely. These details are mighty important!

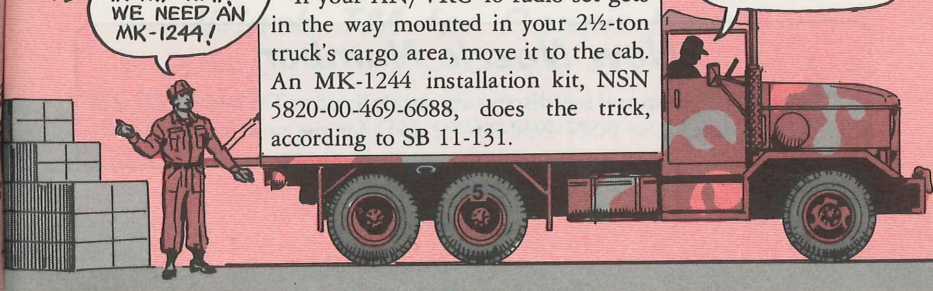
You've got a rundown on these details in TB 43-0001-39-1 (Apr 80), Pages 3-21, -22. If you don't have this TB, drop PS a note and you'll get the info.

Cab Installation Kit

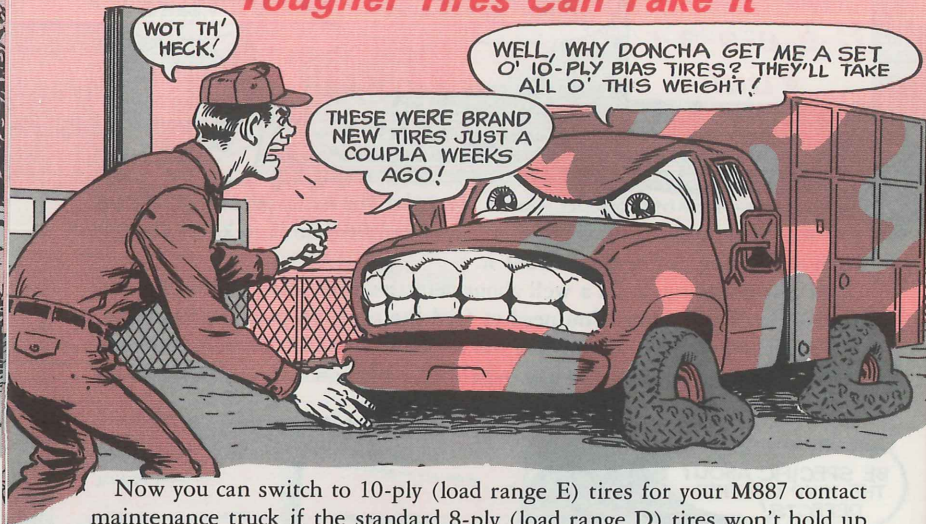
If your AN/VRC-46 radio set gets in the way mounted in your 2½-ton truck's cargo area, move it to the cab. An MK-1244 installation kit, NSN 5820-00-469-6688, does the trick, according to SB 11-131.

HEY, THE RADIO'S IN MY WAY! WE NEED AN MK-1244!

RIGHT! WE'RE ADDING IT TO OUR MTOE NOW!



Tougher Tires Can Take It



WOT TH' HECK!

THESE WERE BRAND NEW TIRES JUST A COUPLA WEEKS AGO!

WELL, WHY DONCHA GET ME A SET O' 10-PLY BIAS TIRES? THEY'LL TAKE ALL O' THIS WEIGHT!

Now you switch to 10-ply (load range E) tires for your M887 contact maintenance truck if the standard 8-ply (load range D) tires won't hold up under the load.

If you really need these tougher tires, you've got to replace all 5 of the tires on your truck. These 10-ply jobs are bias-type and can't be mixed with radial tires.

YOU CAN GET 2 DIFFERENT 10-PLY TIRES...



NSN 2610-00-489-8085,
highway tread
NSN 2610-00-489-8088,
mud-and-snow tread

Tire inflation pressure is 45 PSI front and 55 PSI rear.

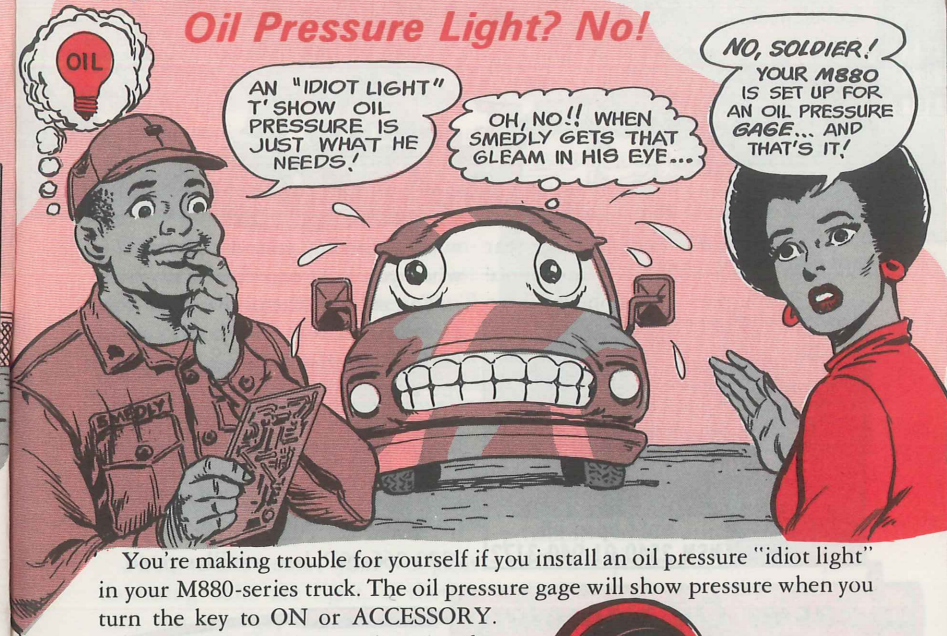
Stencil "BIAS Tires" next to the stenciled tire pressure on the side of your truck.

If your old radial tires are in condition code "F", turn 'em in to supply as excess. See Classification Codes, Para 1-10c, TM 9-2610-201-14.

New Nozzle Number

The tank and pump unit fuel dispensing nozzle listed in TM 5-4930-227-24P has been replaced. Use NSN 4930-00-902-4642 for the new nozzle.

Oil Pressure Light? No!



OIL

AN "IDIOT LIGHT" T' SHOW OIL PRESSURE IS JUST WHAT HE NEEDS!

OH, NO!! WHEN SMEDLY GETS THAT GLEAM IN HIS EYE...

NO, SOLDIER! YOUR M880 IS SET UP FOR AN OIL PRESSURE GAGE... AND THAT'S IT!

You're making trouble for yourself if you install an oil pressure "idiot light" in your M880-series truck. The oil pressure gage will show pressure when you turn the key to ON or ACCESSORY.

You may find a place on the printed circuit board that'll take a bulb (lamp), but don't be tempted. Your truck's set up for an oil pressure gage—and that's all.



Your gage—alone—tells the story on oil pressure!

The printed circuit board diagram in fig 2-12 TM 9-2320-266-20, should show an oil gage—not an oil light.

Smoke in Your Eyes?

The color of your engine smoke clues you on problems. Find out if you've got engine trouble by eyeballing DA Postef 750-66, which your unit gets with a DA Form 4569 for Baltimore Pubs Center.

Winch TM for Repair Parts

The next time you need a part for the front- or rear-mounted winch on your TM-209-series 2½-ton truck, check out your support's TM 9-3830-206-34P. It's got a lot of those parts you've been looking for but couldn't find in your TM 9-2320-209-20P. It lists both organizational and support parts.

M886/M893
Ambulances...

Rear Door Hold-backs

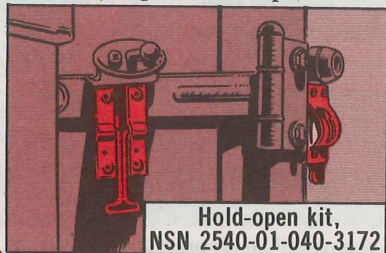


Having trouble keeping the rear doors on your M886/M893 ambulance open? If you park on a slope, or if the

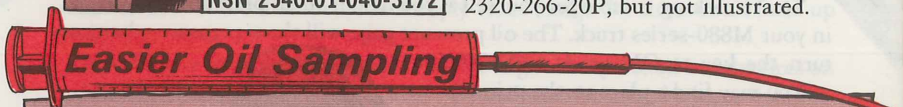
wind's blowing, your doors may close when you least expect 'em to.

To secure them in the open position, get rear door hold-open kit, NSN 2540-01-040-3172. That'll get you a hold-back for each door, all the hardware you'll need and instructions for putting 'em on.

If you need the older plunger hold-back, order PN 51-0987, FSCM 25022. It's listed on Page 2-162 of TM 9-2320-266-20P, but not illustrated.



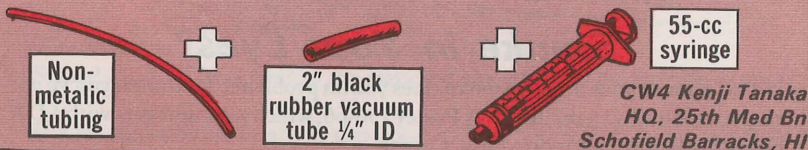
Hold-open kit,
NSN 2540-01-040-3172



Dear Editor,

When you use a tube and syringe to take an oil sample, it's hard to get the tube pushed over the end of the syringe. And it can come apart if you're not careful.

We use a piece of vacuum hose 1 to 2 inches long to join the syringe and the tube. This ends fighting to put the tube on the syringe. It's also flexible and almost never comes apart in the middle of a sample.



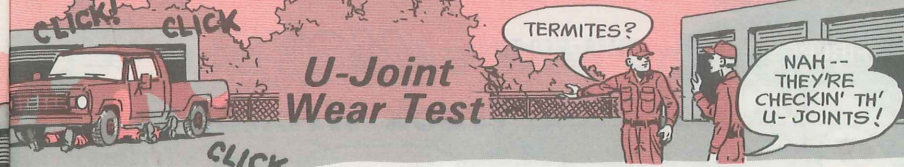
Non-metallic tubing

2" black rubber vacuum tube 1/4" ID

55-cc syringe

CW4 Kenji Tanaka
HQ, 25th Med Bn
Schofield Barracks, HI

(Ed Note—Sounds great! A sampling valve is the best way to take a sample, but your idea will make a tube-and-syringe sample easier. Remember, tho, don't get oil in either the syringe or the short piece of hose. If you do, throw it away so it won't contaminate the next sample.)

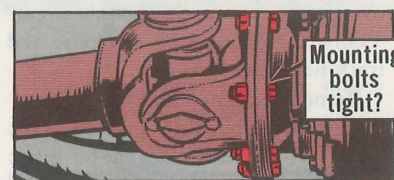


U-Joint Wear Test

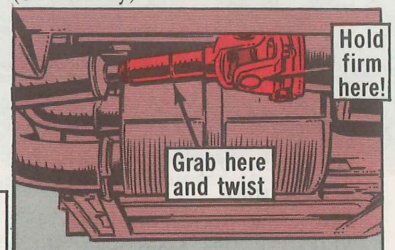
Some universal joints are being replaced when they're OK. Others are not changed when they should be.

Then, grab one side of the joint and try to twist it back and forth while you (or a buddy) hold the other end still.

Next time you're pulling an organizational PMCS on your vehicle, test the U-joints for wear. Then you'll know if it's time to change 'em.



Mounting bolts tight?



Hold firm here!

Any movement or a clicking sound means you have U-joint problems—probably worn bearings.

First, make sure your U-joint mounting bolts are tight. If they're not, you can get a false alarm on trouble.

Be sure you twist, and don't push-pull. You may get a little end play when you push-pull, but that's no sign that your U-joints are bad.

TB 43-0209 **Camouflage HOTLINE** **TB 43-0118** **TB 43-0147**

Do you need to camouflage equipment that's not covered in TB 43-0118, TB 43-0147 or TB 43-0209? Give the Camouflage Hotline a call at AUTOVON 354-2654 to get pattern details.

530-Series Fire Trucks...

Cab Heater Help



Need a new cab heater to replace a non-repairable commercial heater on your fire truck? Use NSN 2540-00-301-7267 to get a Mil Design heater. Mount it with kit, NSN 2540-00-981-2760. Chap 3, TM 9-2320-209-20-1, has the poop on maintenance and repair.

MORE Track Wrenches



You need a torque wrench to maintain T142 track.

The torque wrench needed is NSN 5120-00-221-7983 from your No. 1 Common tool kit.

So how do you spread one torque wrench among your unit's tank crews? You don't have to.

SC 4910-95-CL-A74 for the tool kit will be updated to include the following:

"The total quantity of torque wrenches, NSN 5120-00-221-7983, authorized company/battery/troop units having vehicles equipped with the T142 track shall be based on 1 wrench per 4 vehicles or major fractions thereof. Required additional wrenches must be separately requisitioned."

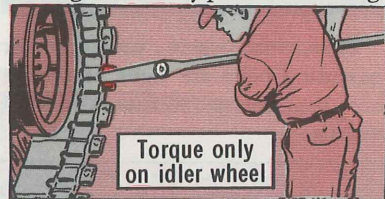
For now, tho, note the above in your SC 4910-95-CL-A74 and use TACOM Message DRSTA-MC 151930Z Apr 81 as authorization to get additional wrenches.

With those wrenches, you can get the right torque.

The way you have to work now—with a cheater bar—the track is

overtightened and bolts break. 'Course, sometimes it's too loose and track hardware falls off.

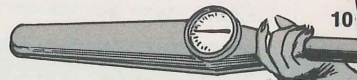
Remember that T142 track is "live" track with the bushings pressed in at a 16° angle. The only place the bushings



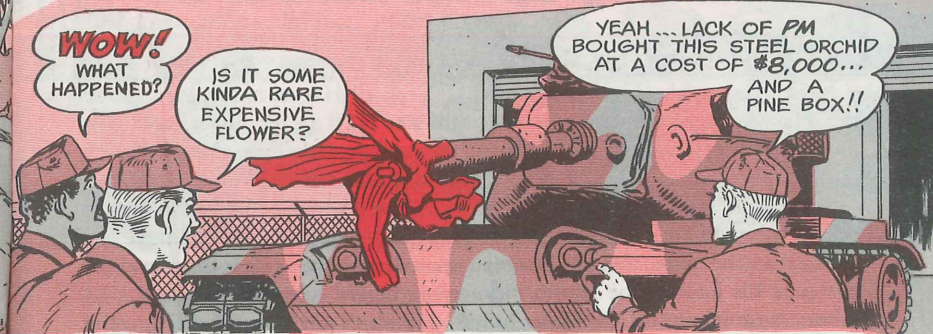
are in a position to seat all the way is when the connectors are on the compensating idler wheel. That's where you torque them. Otherwise, your torque won't hold the way it should, and your track life will go down.



T142 track Torque	
END CONNECTORS ..	180-200 lb-ft
CENTER GUIDES	350-380 lb-ft
TRACK PADS	260-280 lb-ft



How to Make Steel Orchids



Get your tank gun tube half full of sand, mud or whatever, and then fire a round.

You'll turn your gun tube into a steel orchid.

This is an expensive flower—a replacement barrel costs more than \$8,000—and you might not even be around to enjoy it after you make it.



1. Keep the muzzle cover on whenever possible.



2. Try to avoid getting dirt in your gun tube. Like, when there is a dip in the terrain that might dig your gun tube into the dirt, elevate the gun so it won't make contact.



3. Check the bore if you think there might be some obstruction. Clean if necessary.



Tanks...

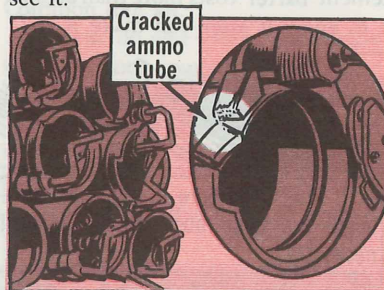
Breaking Up Not Hard to Do

Meet Harvey, the big-footed pack rat. Harvey loves his tank. In fact, most of Harvey's worldly possessions can be found in his tank.

Some stuff Harvey hides, which is to be expected of a pack rat.

Most of the time, tho, ol' Harvey just puts his junk in the ammo rack tubes, 'cause it's up off the floor.

And just in case he might forget where that valuable stuff is, ol' Harvey leaves it sticking out a little so he can see it.



He also learned a long time ago not to depend on the rack handles to keep his stuff in place.

They turned out to be more valuable as steps for his big feet as he climbs in and out of his tank.

Keep 'Em Up

When you're getting ready to move your M101/M101A1 towed howitzer, remember to raise telescope mount M21A1 and range quadrant M4A1 to the upright, level position.

This is not in TM 9-1015-203-12, but it's being added. So make a note and do it. It'll help prevent damage.

Yeah, ol' Harvey has it easy, or so he thinks. He'll never understand why the ammo racks are always getting busted up when the turret is rotated.

All he'll know is that he can't get to his junk—and that he can't move any more 'cause the tank is deadlined for more busted tubes and handles.

He won't put it together that using the handles for steps and the tubes for stowing junk causes the problem.



That's because, after all, ol' Harvey is just a big-footed pack rat.

No US-of-A soldier would do anything like that, would he?

Tanks, CEVs...

Fire Extinguisher Seals

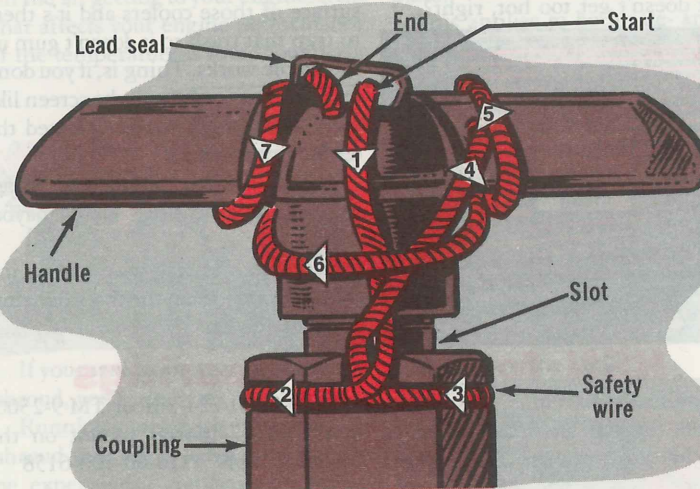


Up to now, installing seal wire on external fire extinguisher handles has been a matter of doing your own thing.

Trouble is, some of the rigging has led to equipment damage and personnel injury—like when the "pull" needed to break the seal and activate the extinguisher is more than the average crewman can do.

That happens when safety wire or lock wire is used, or when extra loops or runs are added for more strength.

With the handle body assembly fully engaged in the coupling, use copper seal wire, NSN 5340-00-902-0426, and lead seal like so:



Bumper Number

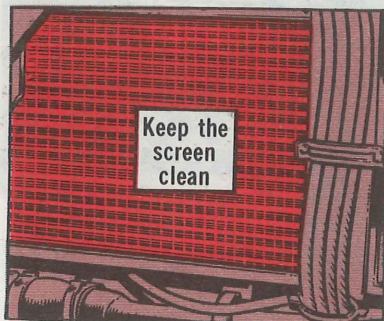
The NSN for the suspension arm rubber bumper on M113-series carriers listed on Page 79 of TM 9-2300-224-20P as Item 4 in Fig 108 is wrong. The right one is NSN 5340-00-172-5719.



Keep a Clean Cooler

The transmission and engine oils in your tanks get very, very hot. You know that, right?

You also know that there're coolers for the transmission and engine oils so that it doesn't get too hot, right?



Well, those coolers aren't worth a toot if they're clogged with trash.

There's a screen over the outer surface of those coolers and it's there to trap that trash so it doesn't gum up the whole works. Thing is, if you don't remove that trash from the screen like your PMCS says, you've defeated the cooler's purpose.

That'll lead to engine and transmission overheating, and maybe, failure.

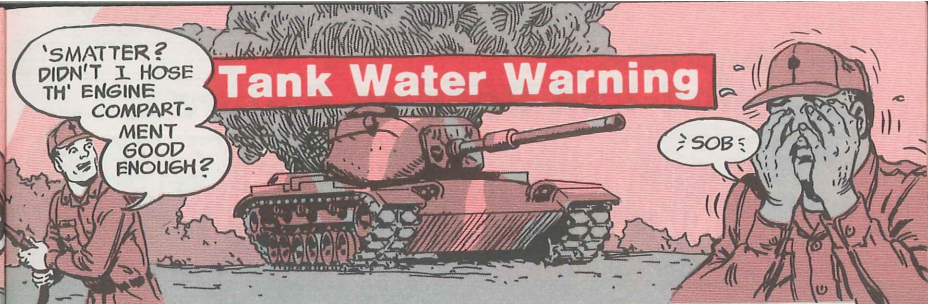
Get wise and stay wise to keeping your oil cool—clean the trash out after every operation.

NSN for Mortar Bearings

There's no stock number listed in your TM 9-2300-224-20P or TM 9-2300-257-20P for the steel ball bearings on the M107 mortar mount on the M106/M106A1 carrier. You can get 'em with NSN 3110-00-100-6158

Pubs Update

Never get caught short on publications you need to operate and maintain equipment. When your unit's MTOE changes, update your pubs subscription list. Some items of equipment may need to be added, increased, decreased or deleted. Let your pubs clerk know about the changes.



Tank Water Warning

Careful when you hose down the engine compartment in your tank even when using low pressure water (Under 35 PSI).

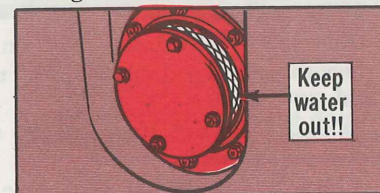
So what's to harm?

Would you believe the air cleaner system?

'Sfact.

Water sprayed into the air inlet pipe can wet your filters and cut down on the air getting to your engines. And that affects your engine performance. If the temperature is low enough, the

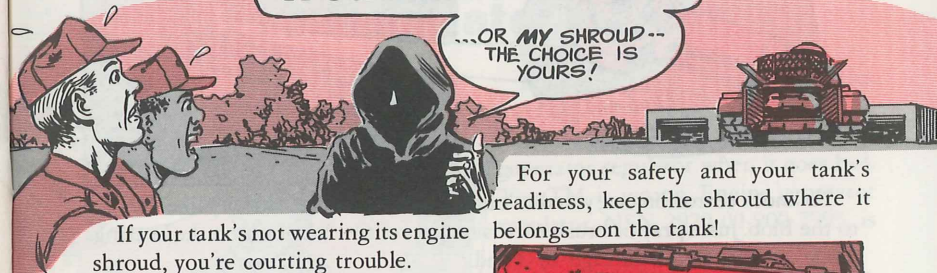
wet filter will freeze. Air just won't go through a frozen filter.



So keep the water out in the first place.

This applies to both side- and top-loading air cleaners.

Wear that Shroud



If your tank's not wearing its engine shroud, you're courting trouble.

Running a tank with its engine heat shroud missing is dangerous and can be expensive if you have an engine fire.

It's so dangerous that tank PMCS is being changed to read: "For readiness reporting, equipment is Not Mission Capable...if engine shroud is missing."

For your safety and your tank's readiness, keep the shroud where it belongs—on the tank!



M113 Family of Vehicles...

Rod-End Bearing Failure

GRRR!

DON'T WORRY, OL' BUDDY... I'LL PROTECT YA WITH THIS LUBE!

WHEW! MY HERO TO TH' RESCUE!

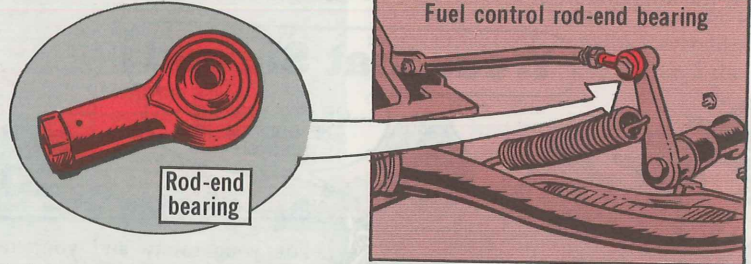


Remember that old science fiction flick, "The Blob"? You know, the one where this gob of goo attacks a small town and kills people by sorta absorbing 'em?

Well, your carriers may be under attack right now by something just as dangerous...corrosion.

Check the rod-end bearings in the pivot steer, fuel control and gearshift linkage systems. They are favorite places for corrosion, especially for carriers operated near salt water or left in storage.

Corrosion can cause rod-end bearing failure, and that means unsafe operation.



To knock corrosion out, you don't have to jolt it with electricity like they did to the Blob. Just spray or brush corrosion preventive lubricant on the bearings while operating the linkage by hand.

If the bearings don't move freely, either the bearings or the linkage is defective. Check your -20 TM for repair/replacement instructions.

THAT CORROSION-KILLING LUBE IS AVAILABLE UNDER THESE NSN'S...

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



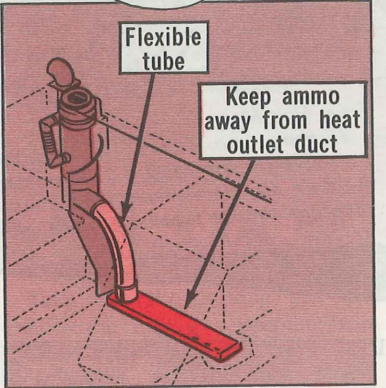
M113A1/ M113A2 Ammo Storage

Make sure your ammo won't go WHAMMO when you turn on the personnel heater in your vehicle. Heed this warning and you won't be mourning:

WARNING

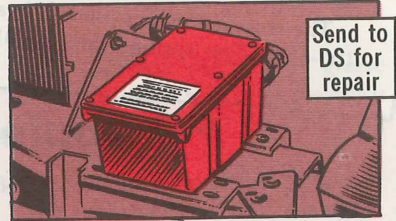
Be certain that ammunition and all other combustible/explosive materials are properly stored and away from heater vents. Never start the heater if such materials are too close to heater vents.

TB 43-0001-39-5 (Apr 81) has the word on Page 3-26.



M113 Regulator Repair

Hold on there, you M113-series mechanics! Never believe it when TM 9-2300-257-20P says to discard the generator regulator when it goes bad. The TM is wrong. Engine generator regulator, NSN 2920-00-900-7993, is repaired at the DS level.



4.2-In Mortar Parts



Dear Half-Mast,

I need some help with stock numbers for the M30 4.2-in mortar. Namely, the bore swab, light instrument mounting bracket, vertex pins

for the graphical firing scale and the spring and ball bearing used in the trunnion detent pin for carrier-mounted mortars.

SGT G. A. B.

Dear Sergeant G. A. B.,

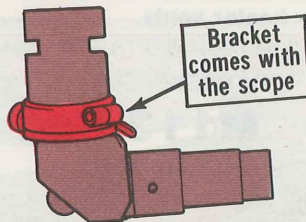
Bore swab, NSN 1015-00-991-3183, no longer is used with the M30. Instead you use clean, dry waste or rags after each 10 rounds fired and after each fire mission. The word is in Para 11d, Page 11, FM 23-92.

The light instrument mounting bracket (M53 sight unit) is not stocked separately because demand for it is low. You get a replacement as part of the M109 elbow telescope, NSN 1240-00-823-5612.

The vertex pin for the fan type scale goes by NSN 1220-00-003-8415. It's in the AMDF.

The trunnion detent pin ball bearing has been changed to NSN 3110-00-100-6158. The spring NSN is 1015-00-508-0165.

Half-Mast



PS Copies Are Free

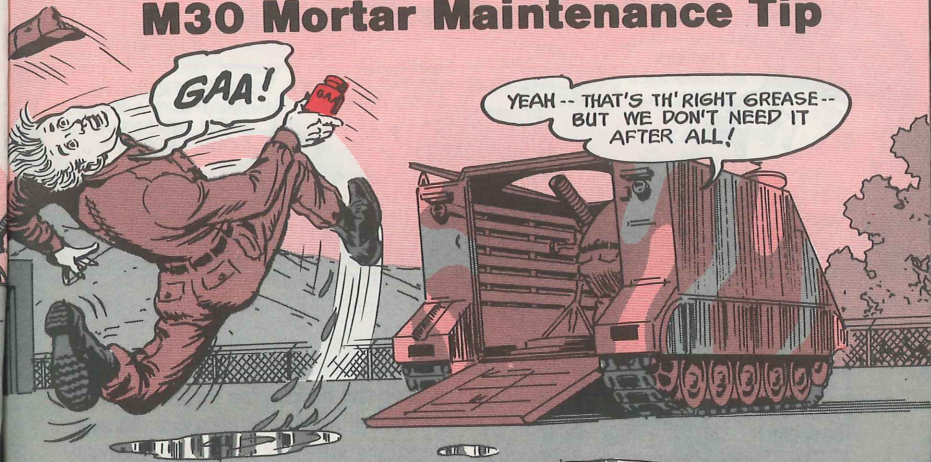
Forty of them...back issues of PS Magazine. They're yours, for free.

18

Bonnie
PS Magazine
Lexington, KY
40511



M30 Mortar Maintenance Tip

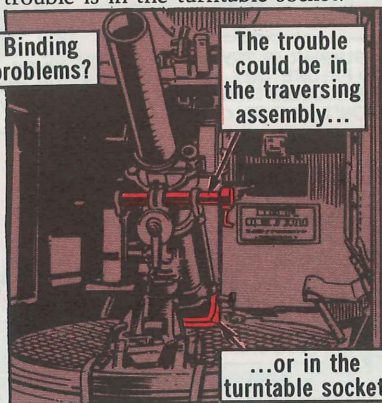


When you have your M30 107-MM mortar mounted on your M106A1 mortar carrier, it's easy to make a mistake and grease the wrong place.

Your traversing assembly might seem to be binding when the real trouble is in the turntable socket.

Binding problems?

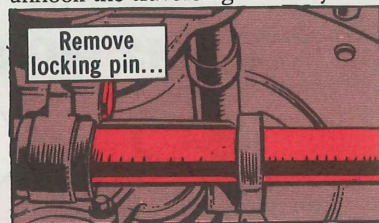
The trouble could be in the traversing assembly...



When you think your traversing assembly is binding, never try to fix it before you make sure that's where the trouble is.



Take out the locking pin and unhook the traversing assembly from



...and unhook the traversing assembly

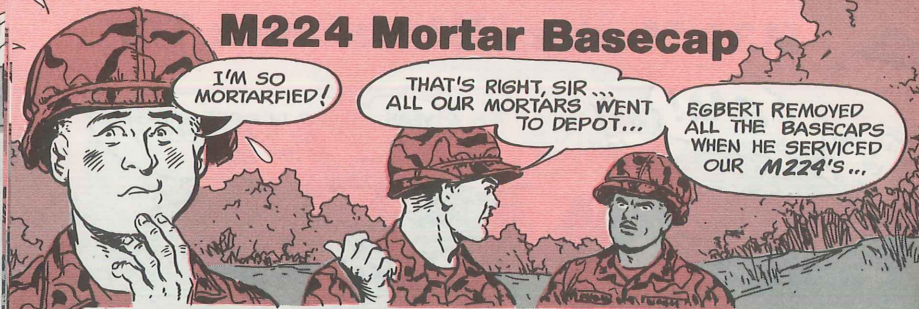
the mortar tube. If you can now move the traversing assembly without any binding, your problem is not in the traversing assembly but in the turntable socket.

Get your unit mechanic to grease the mortar socket with GAA the way it says on Card 5 of LO 9-2300-257-12 (Jan 79).

Then you should be able to traverse easily.

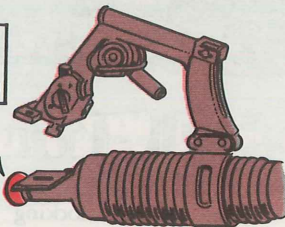
19

M224 Mortar Basecap



When you service the firing mechanism assembly of your M224 60-MM mortar, forget about removing the basecap.

Don't remove basecap



Some armorers are tempted to remove the basecap so they can get to the firing mechanism easier. That's bad news and can make the mortar unserviceable. You guessed it: The cap's depot maintenance level.

Paras 2-11, 2-12, 3-14 and 3-17 of TM 9-1000-202-14, Evaluation of Cannon Tubes, apply to the M224 as well as other mortars.

M2 MG Stopgap



When you install the accelerator stop in the bottom of the bolt of your M2 machine gun, look twice.

The long side of the stop must be parallel with the long side of the bolt.

If it's not, the barrel extension won't close and you might get gray hair trying to solve the problem.

Accelerator stop goes like this...



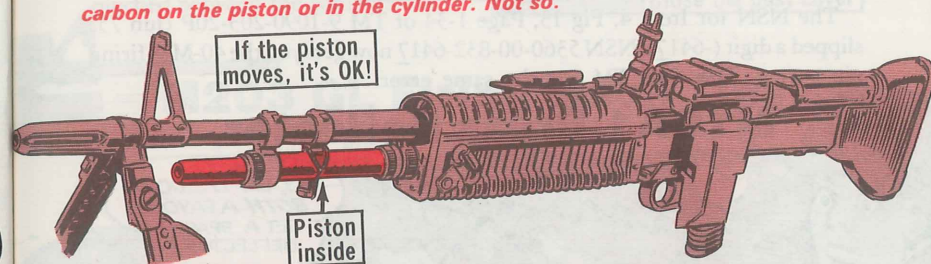
M60 Gas Cylinder



Dear Editor,

There's a simple check that can save unnecessary cleaning of the M60 machine gun gas cylinder.

Troops and inspectors alike think the gas cylinder needs cleaning if they spot carbon on the piston or in the cylinder. Not so.



If the piston is dry and slides back and forth when the barrel is tilted, no cleaning is necessary.

If the piston is wet or doesn't slide, cleaning is necessary.

Carbon buildup in the cylinder or a wet piston will hamper weapon function.

(Ed Note—Right you are. Table 2-5 of TM 9-1005-224-24 also says that the cylinder will be cleaned only if the piston won't move when the barrel's tilted.)

MSG James F. Mitchell
Fort Knox, KY

M60 Suppressor Pin

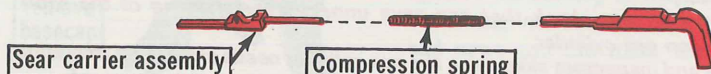
If you need the straight, headless pin that holds your M60 machine gun flash suppressor in place, go for it with NSN 5315-01-047-3003. Forget the NSN in the TM. The solid, headless pin replaces the spring pin.

M28-Series Spring NSN



Need the helical compression spring for the 40-MM sear carrier assembly of your M28-series armament subsystems?

Go for it with NSN 5360-00-832-6412, PN 11696983.

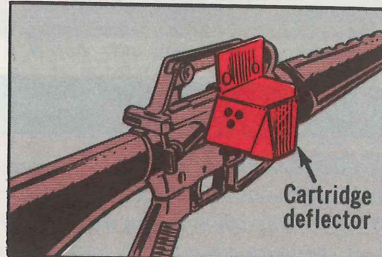


The NSN for Item 4, Fig 13, Page 1-34 of TM 9-1090-203-20P (Jun 75) slipped a digit (-6417). NSN 5360-00-832-6417 now gets you the 40-MM firing pin spring. The -34P TM has the same error.

M16A1 Brass Deflector



Need brass deflectors for your M16A1 left-handed riflemen?



Army units can get them from their nearest Training & Audio-Visual Support Center. They're free issue but you may have to turn them back in at some centers.

Non-Army units can get the deflectors with a command letter to: US Army Training Support Center, ATTN: ATIC-LOM, Ft. Eustis, VA 23604. The price will be forwarded to you.

M16/16A1 Rifle Stiflers

Keeping the takedown detent spring undamaged as you install the buttstock of your M16/M16A1 rifle is as easy as keeping your eye open.



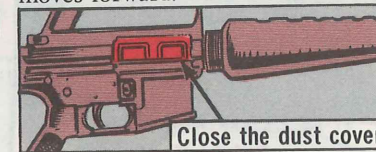
Eyeball the spring as you install the stock on the lower receiver. Be sure it slips into the housing without getting pinched between the components.

Save a gig, save another spring...the hammer spring, that is. Before you put your rifle in the rack, relieve hammer spring tension, like so:

Clear the weapon.



Squeeze the trigger till the hammer moves forward.



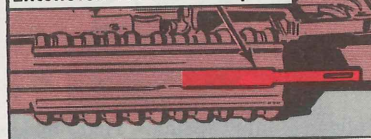
M203 GL Firing Mech Tips

A TIGHT BARREL EXTENSION ON YOUR M203 GRENADE LAUNCHER ASSURES YOU OF 2 THINGS...

- The trigger mechanism will release.
- The GL will fire.

A loose extension can bind the

Extension loose in weapon?



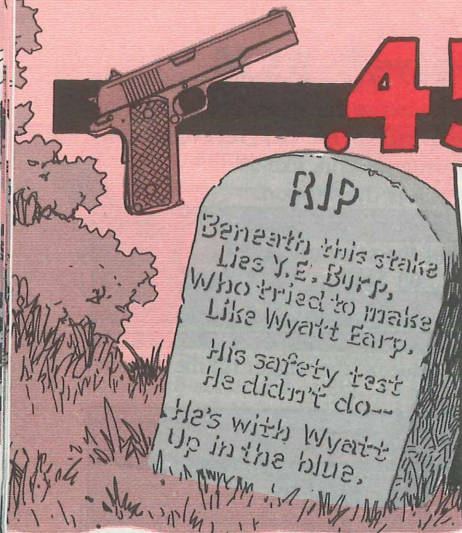
trigger and prevent the GL from firing. So, if it's loose, have your direct support (DS) repair it.

Sear Gets Put in Wrong

DS is supposed to install and remove the trigger assembly. But, some grenadiers and armorers get too enthusiastic and remove the assembly, then install the sear wrong. If you do that, you won't be able to cock the weapon.

If, in an emergency, you have to remove the trigger assembly, then eyeball Fig C-5, Item 10 of TM 9-1010-221-24. It shows how the sear should go on.

.45 Cal Test + Takedown



Safety Test

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

Operators should make all checks in Table 3-2 before firing. Armors should include Table 3-2 in their function test.

Ignoring the safety tests, or forgetting them, invites an accident.

The grip safety test clues you on sear spring wear and other problems. The pistol can be fired without depressing the grip safety when the spring is worn.

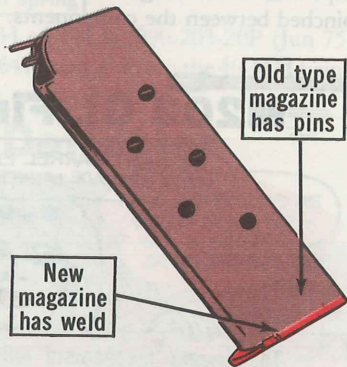
That's not good news for Wyatt Earp types who like to dangle the pistol on their trigger fingers. It's not good if the trigger gets snagged.

MAKE THE TEST! IF THE SAFETY'S FAULTY, YOUR ARMORER CAN FIX IT!

Magazine Disassembly

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

The old type has 2 pins in the base. The newer magazine has a welded base. Do not disassemble either base.



Some troops pry the lips of the newer tube apart to get out the

Don't pry lips

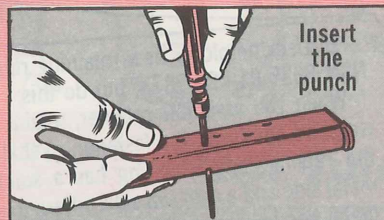


follower and spring. That makes problems because it's hard to bend the lips back right. Cartridges won't feed properly.

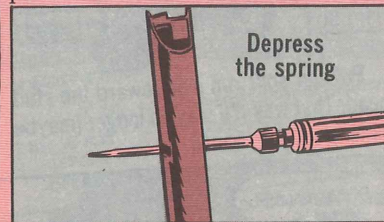
HERE'S A BETTER WAY AND IT'S FOR BOTH TYPES!

Push the follower down about an inch.

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



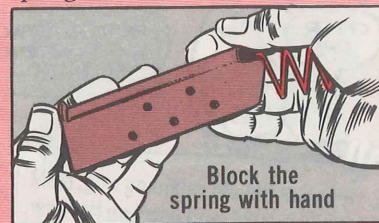
Keep the spring depressed with the punch.



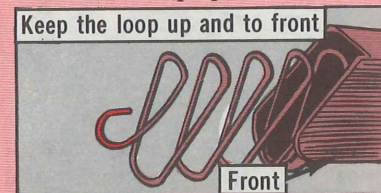
Pull or push the follower out.



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



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



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

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



TOW Studs and Pedestals



Is the retaining ring on the battery fastener of your TOW system battery making the fastener miserable (you, too)?



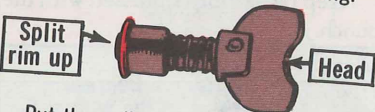
CHEER UP!

HERE ARE TWO WAYS TO BEAT THE PROBLEM, SAVE LOST FASTENERS AND KEEP BATTERIES FROM FALLING...

1. Request the old retaining ring, NSN 5365-00-758-1034, and use it on the new stud until the new ring is available.



2. Use the old or new retaining ring, NSN 5635-01-020-3873, but do this: When you assemble retainer, retainer ring and spring on the fastener, eyeball the retainer ring. The ring has a solid metal side and a split rim side, where the metal has been pressed on the ring.



Put the split rim side toward the stud head. That way it'll stay on longer (maybe as long as you want).

TO GET THE NEW FASTENER, USE THESE NSN'S...

	Spring		1440-01-041-3824
Fastener	5325-01-049-0728		
	1440-01-041-3825	Retainer Ring	5635-01-020-3873

IF YOUR TOW IS PEDESTAL-MOUNTED AND THE PEDESTAL'S EXPOSED TO WEATHER WHEN NOT IN USE, DO THIS...

Pedestal Ice

Cover the opening with canvas, plastic, a bucket...whatever. This is extra important in winter. If water collects in the pedestal, it'll expand and cause damage when it freezes.



Use Vulcan ESC

Dear Half-Mast,
Table 3-1, TM 9-2350-300-10, Preventive Maintenance Checks and Services, does not have a "readiness" column in it. How do we determine ready/not ready status?

SGT C. G.

TM 9-2350-300-10

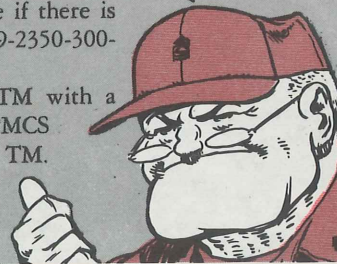
Table 3-1. Preventive Maintenance Checks and Services

1 hr 10 min	2 min	13 min
B - BEFORE OPERATION	D - DURING OPERATION	W - WEEKLY
	A - AFTER OPERATION	

INTERVAL AND SEQUENCE NO.				ITEM TO BE INSPECTED
B	D	A	W	
				PRO
1				M1
2				Sys
				Be
				ent
				is
3			51	S
				/E

Dear Sergeant C. G.,
When the PMCS table doesn't have a readiness column, you use the Equipment Serviceability Criteria TM on the equipment as a guide if there is one. In your case it's TM 9-2350-300-ESC.
When a revised -10 TM with a readiness column in the PMCS comes out, toss the ESC TM.

THIS RULE APPLIES ON ANY EQUIPMENT!



PUBS

This is a selected list of recent pubs of interest to organizational maintenance personnel. This list is compiled from recent AG Distribution Centers Bulletins. For complete details see DA Pam 310-4 and DA Pam (C) 310-9.

TECHNICAL MANUALS

TM 5-3740-206-24P Jul Sprayer, insecticide, skid mtd, GED 40 GPH
 TM 5-4310-354-14-HR Aug Compressor, rotary, air DED 125 CFM
 TM 5-4310-363-14-HR Jul Compressor, 15-CFM 175-PSI
 TM 5-4310-365-24P Jul Compressor, recip 3500 PSI
 TM 5-5420-226-20-1 Nov M48A5 tank chassis, transporting AVLB
 TM 5-5420-226-20-3 Nov M48A5 tank chassis, transporting AVLB
 TM 5-5420-227-24 Oct M48A5 tank
 TM 5-6130-301-13&P Aug Battery charging distribution panel
 C 2, TM 9-1000-202-14 Jun Evaluation of cannon tubes
 C 1, TM 9-1005-286-20P Nov Vulcan
 TM 9-1220-221-20&P Jun FADAC
 TM 9-1270-212-14&P Jul Fire control subsystems, helmet-directed XM128, XM126
 TM 9-1450-486-12 Oct Lance handling equipment
 C 1, TM 9-2350-303-10 Oct M109A2 howitzer
 TM 10-3930-640-14&P Jun Truck, fork lift, GED, 10,000 lb cap MHE 238
 TM 11-1520-239-20P Jun Electronic equipment AH-1S (Modernized)
 TM 11-5805-729-12-HR Oct AN/GCC-21A call director set
 TM 11-5810-286-14P Oct TSEC/HY-11 communications security equipment
 TM 11-5840-355-20-1 Oct AN/TPQ-37

(V) radar set
 TM 11-5840-355-20-2 Oct AN/TPQ-37 (V) radar set
 TM 11-5855-261-10 May AN/PAQ-4 infrared aiming light
 TM 11-5895-1078-10 Oct AN/APS-94F radar survival kit
 TM 11-5895-1130-10 Oct AN/PPN-18 forward air control transponder set
 TM 11-5985-360-24 Jul OE-4/GR antenna group
 TM 11-6130-356-20P Nov PP-6148/U power supply
 TM 11-6625-524-24P May AN/URM-145C electronic voltmeter
 TM 11-6625-2988-14 Jun ME-513/U radiation hazard meter
 TM 11-6665-232-20P Sep IM-174A/PD and IM-174B/PD radiometers
 C 24, TM 55-1520-210-23-1 Oct UH-1D/HV/EH-1H
 C 11, TM 55-1520-210-23-2 Jun UH-1D/HV/EH-1H
 C 1, TM 55-1520-210-23P-1 Sep UH-1B, UH-1C, UH-1H, UH-1M, EH-1H (Bell, UH-1V)
 C 7, TM 55-1520-210-PM Jul UH-1D/HV and EH-1H
 C 5, TM 55-1520-220-23-1 Nov UH-1C/M
 C 3, TM 55-1520-227-23 Sep CH-47B, CH-47C
 C 8, TM 55-1520-237-23-7 Aug Powertrain maintenance task UH-60A
 C 6, TM 55-1520-237-PM5-2 Jun UH-60A
 TM 55-1520-239-23P Oct AH-1S (MC)
 C 1, TM 55-1680-317-23&P Aug Survival kits
 TM 55-1680-317-CL-1 Aug Individual hot climate survival kit
 TM 55-1680-317-CL-2 Aug Individual cold climate survival kit
 TM 55-1680-317-CL-4 Aug SRU-21/P aircrew survival vest

TM 55-1680-317-CL-5 Aug OV-1 aircraft, hot climate survival kit
 TM 55-1680-317-CL-6 Aug OV-1 aircraft, cold climate survival kit
 C 5, TM 55-2840-241-23 Jun Engine T63-A-720
 C 3, TM 55-2840-249-23 Sep Engines T55-L-7, T55-L-7B, T55-L-7C

MISCELLANEOUS

C 1, AR 725-50 Oct Supply
 AR 710-2 Oct Supply
 CIR 700-81-2 Oct Standardized combat PLL/ASL
 CIR 710-81-4 Sep On revision of AR 710-2
 DD Form 1970 Apr Motor eqpt utilization record
 LO 5-3895-371-12 Apr Bituminous distributor body, M918
 LO 5-6115-590-12 Aug Power plant utility, GTE
 LO 9-1090-206-12 Jun Armament subsystem XM97E1
 LO 9-2350-255-12 Nov M1 tank
 LO 9-2350-259-12 Jun Improved TOW veh M901
 PAM 710-3 Oct Standardized combat PLL/ASL
 SC 5180-90-CL-N07-HR Jun Tool kit canvas worker's
 SC 5180-90-CL-N48 HR Apr Tool kit, lineman's
 SC 5180-90-CL-N48-HR Apr Tool kit, lineman's
 SC 7960-90-CL-N03-HR Jun Accessory outfit, gasoline field range
 TB 43-0210 Oct Nonaeronautical equipment Army Oil Analysis Program (AOAP)
 TB 43-0211 May AOAP user's guide nonaeronautical equipment
 TB 5-4200-200-10 Aug Hand portable fire extinguishers approved for Army users

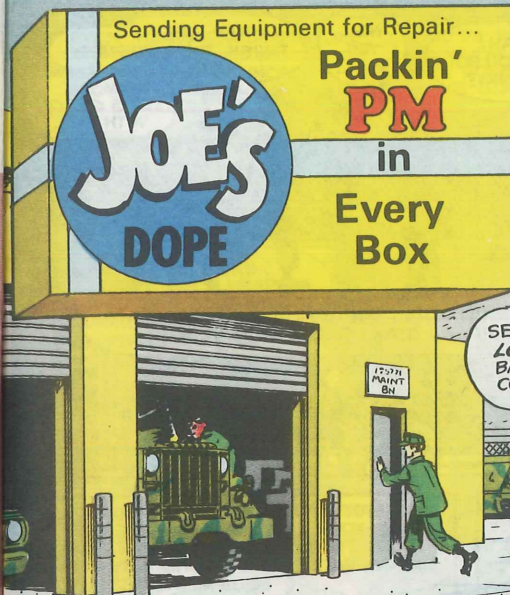
AUDIO-VISUAL STUFF

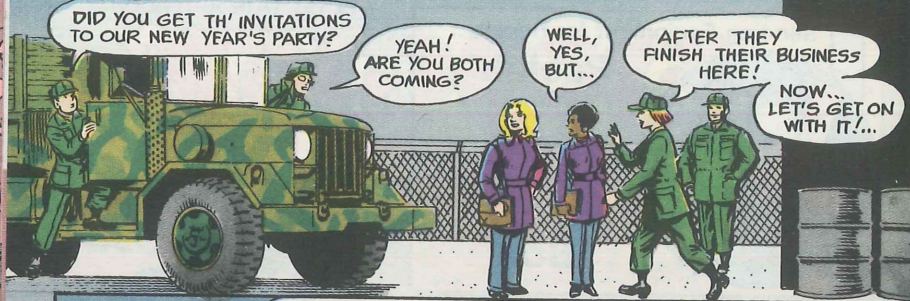
Available at battalion or post Learning Center

Films
 TF 44-6076 Stinger
 TF 46-6207 Helicopter weight, balance
TEC LESSONS
 010-071-5608-F Fire direction computer, Part I
 020-171-1005-F M239 grenade launcher sys
 020-171-1142-A M240 machine gun in M60A1/A3 tank
 043-441-1059-F FAAR display sys, Part I
 043-441-1060-F FAAR display sys, Part II
 043-441-1061-F FAAR
 043-441-5481-F IHIPIR, Part I
 043-441-5482-F IHIPIR, Part II
 043-441-5491-F High-voltage power supply test set, Part II
 043-441-5534-F IPAR synchro alignment
 043-441-5554-F IROR maintenance, Part IV
 043-441-5564-F IROR maintenance, Part IV
 043-441-5566-F Aline IROR,

Part I
 043-441-5567-F AFC alignment of IROR, Part II
 043-441-5570-F IROR synchro alignment, Part II
 043-441-5573-F HAWK loader-transporter
 043-441-5574-F I-HAWK loader transporter
 043-441-5576-F I-HAWK loader-transporter—Track
 043-441-5579-F I-HAWK launcher quarterly checks, Part II
 043-441-5582-F I-HAWK launcher, Part V
 043-441-5585-J Alignment of ICWAR
 043-441-5586-J Alignment of ICWAR
 043-441-5588-J Alignment of IROR to the IHIPIR
 043-441-5589-J Alignment of I launcher
 043-441-5597-F Individ synchro alignment of ICWAR, Part II
 043-441-6002-F Sight purg-

AN/URM-120
 101-113-4807-A AN/URM-25F
 102-113-5501-A Aux power unit for aircraft
 104-301-7554-A Intro to AN/PPS-15A (V) 1 radar
 104-301-7555-A AN/PPS-15A (V) 1 radar
 121-093-6602-F TOW FTS
 221-301-7215-A AN/PPS-15A (V) 1 (17K)
 221-301-7216-A Unpack, inspect AN/PPS-15A (V) 1
 221-301-7217-A Tripod-mtd install of AN/PPS-15A (V) 1
 221-301-7218-A Handheld, pintle-mtd AN/PPS-15A (V) 1
 221-301-7219-A Levelling, orienting AN/PPS-15A (V) 1
 221-301-7220-A AN/PPS-15A (V) 1
 221-301-7221-A Checks of AN/PPS-15A (V) 1
 221-301-7222-A Op adjust AN/PPS-15 (V) 1
 221-301-7223-A AN/PPS-15A (V) 1
 101-113-4804-A Meter, modulation ME-57 ()/U
 101-113-4805-A Frequency counter AN/USM-207
 101-113-4806-A Wattmeter





DID YOU GET TH' INVITATIONS TO OUR NEW YEAR'S PARTY?

YEAH! ARE YOU BOTH COMING?

WELL, YES, BUT...

AFTER THEY FINISH THEIR BUSINESS HERE!

NOW... LET'S GET ON WITH IT!...

... LET'S SEE WHAT GRIEF TH' 999th HAS BROUGHT T' (SHUDDER) START TH' NEW YEAR WITH!



EVEN HEAVY EQUIPMENT LIKE THAT RADIATOR AND GENERATOR GET DAMAGED BOUNCING AROUND IN THE BACK OF A TRUCK!

YOU'RE RIGHT, BONNIE... THE RADIATOR DIDN'T HAVE BUT ONE HOLE IN ITS CORE WHEN WE STARTED OUT...

...AND THE SHAFT OF THIS GENERATOR WASN'T BENT LIKE THIS!...

?GULP?

RIGHT! THOSE ITEMS SHOULD'VE BEEN WRAPPED, PADDED AND SECURED IN CRATES... EVEN FOR A SHORT TRIP!

GOOD PACKING STARTS WITH A GOOD BOX!

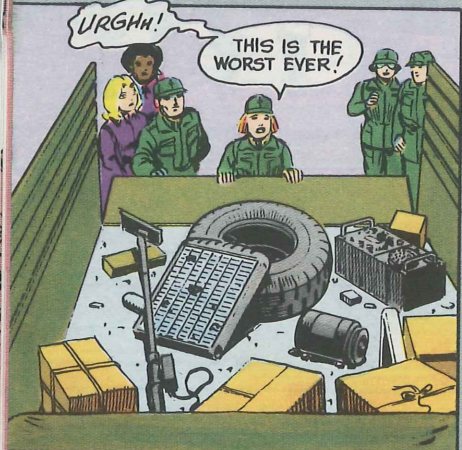


IF YOU DON'T HAVE THE ORIGINAL BOX, USE A FIBERBOARD BOX OR A REUSABLE FAST-PACK CONTAINER!

... BUT REMEMBER, GEAR RATTLING AROUND IN A BOX CAN GET DAMAGED!

-- SNUG IT UP GOOD WITH PADDING!

GREAT! LAY IT ON 'EM!



URGH!

THIS IS THE WORST EVER!

SERGEANT BELL, YOUR REPORT DID NOT EXAGGERATE!

SOLDIERS-- YOUR CARELESS PACKING AND TRANSPORTING COST YOUR UNIT LOSA DOWNED EQUIPMENT AND PLENTY OF MONEY!

HUH?

'FRAID SO! LOOK AT THIS TORQUE WRENCH... IT'S CRACKED, BROKEN AND RUSTED!

BUT I WRAPPED IT IN BUBBLE WRAP...



NOT GOOD ENOUGH!!

FRAGILE PARTS, COMPONENTS AND END ITEMS SHOULD TRAVEL FIRST CLASS!

THE BIG POINT: USE THE RIGHT BOX AND PROPER CUSHIONING!

THAT MEANS USE THE ORIGINAL BOX IF YOU HAVE IT... AND PACK IT SNUG WITH PLENTY OF PADDING! BUBBLE PACK MATERIAL IS FINE...

BUT IT'S NOT ENOUGH BY ITSELF!



30



I HEARD A VOICE!

YEAH-- SOUNDED LIKE IT CAME FROM THAT BANGED-UP BOX BACK THERE--

I'LL GET IT!

FUNNY... WHERE'D THAT BOX COME FROM? WE DIDN'T LOAD IT!



WHY-- IT'S A--A BABY!

NOT JUST A BABY! ... I'M YOUR NEW YEAR!

FATHER TIME -- IN HIS USUAL RUSH-- PACKED ME AND SOME PACKING INFO T'GETHER-- AN' THEN DROPPED TH' PACKAGE INTO THIS 999th TRUCK!

HERE'S A POSTER HE SENT!

HE SAID I MIGHT AS WELL START MY YEAR WITH A BAPTISM OF FIRE... SEE IT LIKE IT REALLY IS!

US ARMY ONE NEW YEAR HANDLE WITH CARE

31

JOE'S

Dope Sheet



This gives you NSN's of other packing materials

Sending gear to DS for repair
Need not lead to cries of despair!
Pack it RIGHT (with PM)
Snug and tight (like a gem)
So it won't suffer harm getting there!

SB 38-100

TM 746-10

TM 38-230-1

TM 38-230-2

These give you good packing and preservation info.

PACKING
(VOLUME II)

AMERICAN COUNCIL ON
MILITARY EQUIPMENT
1974

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.

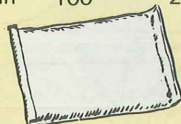
THERE!
THAT SHOULD
HELP YOUR
BUMP!

FEELS
BETTER, BONNIE...
BUT USE OF
THIS LIST OF
COMMON
PACKING
MATERIALS
WOULD'VE
HELPED
MORE!



SHIPPING BAGS, PADDED:
for small items

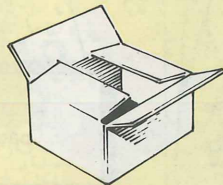
Size	Quantity	NSN 8105-00-
6 x 10-in	250	290-0340
7 1/4 x 12-in	100	290-0342
9 1/2 x 14 1/2-in	100	281-1168



FIBERBOARD BOXES:

See SB 38-100 for bursting strength
(lots of 25)

Size	NSN 8115-00-
8 x 8 x 10-in	183-9499
10 x 8 x 6-in	183-9497
12 x 8 x 8-in	183-9493
16 x 12 x 8-in	183-9487



BUBBLE PACK MATERIAL:

for wrapping, cushioning, immobilizing item

Roll size	NSN 8135-00-
3/16-in x 24-in x 500-ft	142-9016
1/2-in x 24-in x 250-ft	926-8991



CORROSION PREVENTIVE:

for protecting machined ferrous surfaces

Container size NSN 8030-00

1-gal can	244-1297
5-gal pail	244-1298



BARRIER MATERIAL, GREASE/WATERPROOF:

for wrapping items covered by corrosion
preventive

Roll size NSN 8135-00-

36-in x 100-yd	753-4661
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SHROUDING MATERIAL, PLASTIC:

for protecting skid-mounted and palletized items

Roll size NSN 8135-00-

12-ft x 100-ft	579-6489
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TAPE, PRESSURE-SENSITIVE:

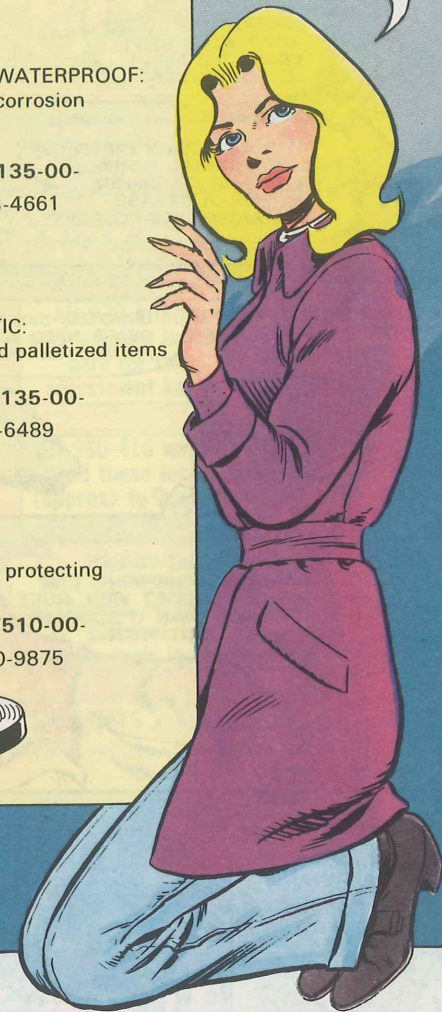
for sealing, waterproofing, and protecting

Roll size NSN 7510-00-

4-in x 60-yd	890-9875
--------------	----------



THE IL FICHE AND
THE GSA CATALOG FOR
FSC 8115 HAVE LISTS OF
REUSABLE SHIPPING
BOXES! SEE YOUR
SUPPORT!



PM

PACK THE SMALLEST ITEMS IN A PADDED SHIPPING SACK...

CHECK **SB 38-100** FOR THE BURSTING STRENGTH OF BOXES...

BLOCK AND BRACE HEAVY ITEMS SUCH AS GENERATORS SO THE LOAD WON'T SHIFT! CRATE THE ITEMS IF NECESSARY!

PUT A CORROSION PREVENTIVE ON BARE METAL SURFACES! THEN WRAP OR COVER 'EM WITH A GREASE-PROOF/WATERPROOF COVERING!

VERY GOOD, MR. 1982 PM...

LET'S "WRAP-UP" OUR DISCUSSION WITH THIS TIP...

UNBOXED, SKID-MOUNTED AND PALLETIZED ITEMS NEED A SHROUD COVER FOR PROTECTION FROM RAIN AND DUST!

HEY!! I GET IT!

YEAH-- WHAT YOU'RE SAYING IS EQUIPMENT CAN REACH SUPPORT WITH MORE DAMAGE THAN IT STARTED OUT WITH...

... IF YOU DON'T PACK A LITTLE PM IN EVERY BOX YOU SEND!

SAY, MR. PM-- LET'S PACK YOU BACK UP IN YOUR BOX AS A BIG SURPRISE FOR OUR PARTY...

OH-NO!!

THANKS-- BUT I GOT LOTS O' PM APPOINTMENTS THIS YEAR...

... AN' I BETTER GET STARTED...

POOF

OK, GANG -- WHAT SAY WE CHECK OUT TH' 999th TRANS' NEW YEAR'S PARTY?

RIGHT ON!

AIR MOBILITY

Adjustment Now 'A Breeze!'

KOF-KAF! IF ONLY THERE WAS A BETTER WAY!

THERE IS!

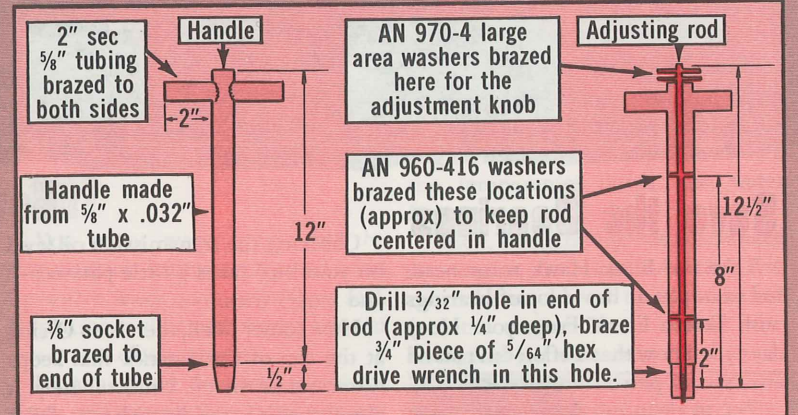
Dear Editor,

A mech really has his hands full when adjusting the low-idle on the U-21 engine, as spelled out in Para 4-38a of TM 55-1510-209-23.

Using a maintenance stand, with the engine operating, you loosen the jam nut. Then, with one hand, you try to keep the hex wrench in place as you tighten the jam nut with the other hand.

All the time the engine is blowing hot exhaust fumes in your face.

No more! Not when we use this locally-made adjustment tool.



- MATERIALS**
- 16 inches—steel tubing 5/8" x .032"
 - 12 1/2 inches—1/4" round steel
 - 5/64" hex drive wrench
 - 1—3/8x1/4 drive socket
 - 2—AN 970-4 large area washers
 - 2—AN 960-416 washers

It takes just a couple of minutes to loosen the jam nut with the tool handle, turn the adjustment rod that's inserted in the handle, and tighten the nut.

The operation is also much safer, since you won't need a maintenance stand to reach the jam nut.

(Ed Note—Good going. The head hangar—TSARCOM—recommends use of the tool.)

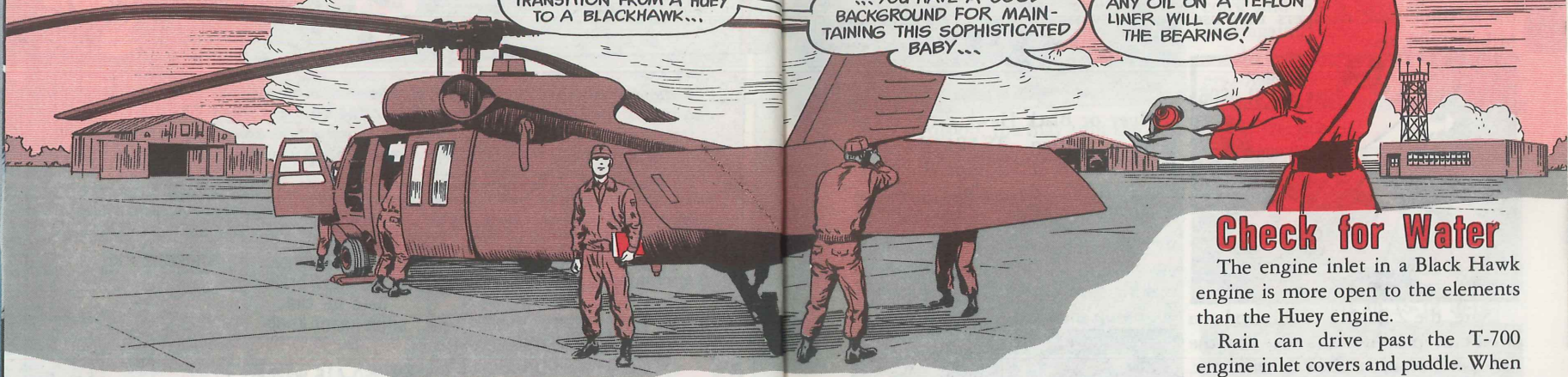
Carl E. Peters
Fort Ord, CA

TRANSITIONING? No Sweat!

WHEN YOU CREW CHIEFS
TRANSITION FROM A HUEY
TO A BLACKHAWK...

... YOU HAVE A GOOD
BACKGROUND FOR MAIN-
TAINING THIS SOPHISTICATED
BABY...

...AND REMEMBER,
ANY OIL ON A TEFLON
LINER WILL RUIN
THE BEARING!



Save the Bearings

Take the Black Hawk rotor head, for example. It has a lot of bearings with Teflon liners. From your Huey days you know that Teflon can't stand any type of petroleum product.

Yet, to clean 'em, some mechs have been spraying those bearings with solvent. The result is an oil-soaked liner, followed by Teflon chips, metal-to-metal contact, and a shot bearing. The swashplate and bifilar are the only parts in the rotor head that get lubricated.

To remove any brownish residue (which is not rust), clean the bearings with a clean, dry rag.

Checking the transmission oil level on your bird takes a little patience—and 2 or 3 tries.

How come? Well, there's an O-ring at the top of the dipstick that keeps water out of the oil. Unfortunately, it also traps air in the dipstick tube. Oil is



slow to return to the tube so you won't get an accurate check the first time. You'll get a low oil level reading.

How's the Oil?

You never want to overfill the transmission because you could wind up with a leaky main rotor shaft seal. Replacing a shot seal means a lot of sweat and elbow grease.

Removing the dipstick a couple of times will remove the air and give you an accurate reading. An oil level between LOW and FULL indicates you have about the required amount—7 gallons.

Watch Your Step!

When you're topside, give the auxiliary power unit air inlet screen plenty of room. A boot placed squarely on the screen will crack it.

Check for Water

The engine inlet in a Black Hawk engine is more open to the elements than the Huey engine.

Rain can drive past the T-700 engine inlet covers and puddle. When the temperature drops, the water freezes.

Then, when the engines are cranked up, engine heat and vibration will cause the ice to break up and be sucked into the engine. You'll end up with foreign object damage!



Check the engine inlet for water when you remove the inlet cover.

Right Oil Important

Fire-resistant hydraulic fluid, MIL-H-83282, replaced MIL-H-5606 in most hydraulic systems.

Never add MIL-H-83282 to any of the 4 rotor head dampers that use MIL-H-5606, tho.



Sure, the 2 fluids will mix and you won't even ruin the seals. But the viscosity of each fluid is different. With the damper pistons moving back and forth, the fluid heats up and changes the rate of flow.

To head off a "dancing" rotor head caused by a 1-to-4 beats per revolution vibration, service the dampers with MIL-H-5606 hydraulic fluid only. That's the word in Task 1, Step 10 of TM 55-1520-237-23-4. Be sure you also use MIL-H-5606 in the landing gear.

And, if you're about to change a damper on your chopper, keep this in mind:

The dampers are shipped from the manufacturer with a preservative fluid. You have to drain the fluid and add MIL-H-5606 before you install the damper.



Huey or Black Hawk cargo doors take a beating. TSARCOM Msg DRSTS-M 222119Z Apr 81 (UH-60A-81-10) summarized several maintenance actions to be taken on the UH-60A doors. Included was a doubling of the upper door stop and making sure your aircraft has a lower door stop installed.



Door maintenance is covered in Task 7, TM 55-1520-237-23-5.

When you remove a cargo door for maintenance, be careful when you put it back. As you slide the door onto the tracks, make sure it's level with the tracks. If you allow the rear end of the



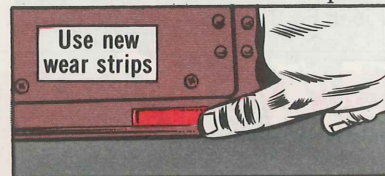
Cargo Door PM

door to droop, you may split the dust shield and that means more maintenance.



If you get a lot of door vibration in flight, check the rollers for too much play.

There are 4 wear strips on both the upper and the lower door tracks where the rollers seat. The strip, Item 38, Fig 49 in TM 55-1520-237-23P, will wear out in time. Then, for a snug fit, you'll need to bond on new wear strips.



Yessir-e-e, bird mechs, your "sugar" is refined...takes a bit more PM than the other kind!

Save the Windshields!!

Any time you Black Hawk types install a windshield, focus on Task 7 in TM 55-1520-237-23-10. If the windshield is not seated evenly, it'll crack and you'll have to do the job over again.

Like—insert the screws and washers. Add the nuts and hand-tighten them in the sequence shown in Fig 7-3 of the pub.



...torque nuts to 15-18 lb-in



Torque the nuts, again in the same order, to 15-18 lbs-in—no more!

'Course, when you're working on windshields, all electrical power has to be turned off. The battery should be disconnected.

For good measure, tho, pull the circuit breaker for the heating element on an outboard windshield. Then, if somebody accidentally flips the heater switch to ON and the battery is connected, that baby won't be damaged. The windshield will actually melt if the automatic 75-115 degrees F rheostat in the system malfunctions.

If It's AIMI, Move It!

Got a package marked "AIMI"? That repair part is needed to keep a bird flying.

AIMI stands for "Aviation Intensive Management Items". Depots are marking these critical priority items with a red "AIMI" to let you know the part is in high demand.

AIMI items are announced in TSARCOM supply letters. Look for them and keep the items moving.

More Washers OK

Balancing the OH-58 tail rotor is tricky enough without the restriction of 3 washers maximum per bolt. Para 5-170 of TM 55-1520-228-23 is being changed to remove the 3-washer limit.



More washers OK

Restore Cleaning Kit!

Got a plexiglass polishing kit, NSN 1560-00-624-0175, that's gone "dry" because the naphtha cleaner has evaporated? Get the kit in shape with NSN 6810-00-238-8119. It gets you a gallon of naphtha. Be careful with this stuff, tho. It's highly flammable. If you can't get the naphtha, use water.

Hydraulic Fluid Status

Stick with TB 55-1500-334-25 and use OHA hydraulic fluid, MIL-H-5606, in the propeller control systems of your Mohawk (OV-1). If the props have already been converted to fire-resistant MIL-H-83282 fluid—which causes seals to leak—drain them and go back to the other red juice. TSARCOM Msg DRSTS-MEA 051430Z Oct 81 has the details.

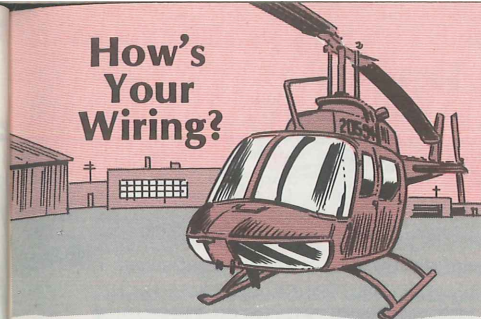
Metal is Better

The plastic clevis in the AH-1S doors cracks if the canopy is left partially open when ground-running the engine. So, Cobra mechs, latch onto metal clevis, NSN 1560-01-092-7085, for Item 56 in Fig 8 and Item 53 in Fig 9 of TM 55-1520-236-23P.

Hold It, Chinook Mechs!

There's a shortage of CH-47 rotor head retaining nuts, so never just toss 'em away! See if the retaining nut, NSN 5310-00-991-8544, can be used again. For tare or breakaway torque limits, check your bird's -23 manual. For CH-47A's, see Para 5-13n, TM 55-1520-209-23-2; for Chinook B and C Models, see Para 5-13m, TM 55-1520-227-23-2.

How's Your Wiring?



HERE'S WHAT YOU NEED TO REWIRE THE OH-58A LANDING LIGHT!



Item	Quantity
12-gage wire power lead, NSN 6145-00-056-8451	1 ft
16-gage ground wire, NSN 6145-00-056-8484	2 ft
16-gage terminal lugs, NSN 5940-00-143-4780	2 ea
12-gage terminal lugs, NSN 5940-00-143-4775	4 ea

Do you Kiowa types have an OH-58A with a serial number prior to 72-21261? If so, check the landing light's wiring.

The early models had low-temperature wiring that has not been replaced. During night operations, the wires heat up and burn. You need high-temperature wiring, according to the note on Page 9-58, TM 55-1520-228-23.

If the lamp is burned out, get a new one with NSN 6240-00-577-8450.



Lamp need replacing?



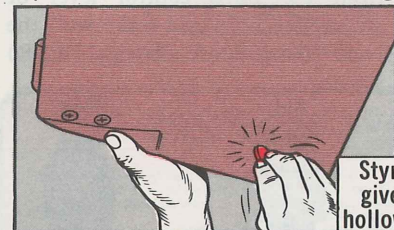
Hollow Sound OK!



Using a coin to check for a bonding void in your thin-skinned aircraft is standard operating procedure.

It won't work on the tip cap of your OH-58A/C main rotor blades, tho.

You always get a hollow sound when you tap the cap because it's filled with Styrofoam. You do not have a bonding void there requiring blade replacement.



Styrofoam gives you hollow sound



Move inboard from the cap (Station 208, Fig 5-22 of TM 55-1520-228-23) and you'll get a solid response to your tapping.

So when you spot small dents in blade caps and flight characteristics are not affected, Para 5-86e (8) of the maintenance pub says you can keep 'em flying.

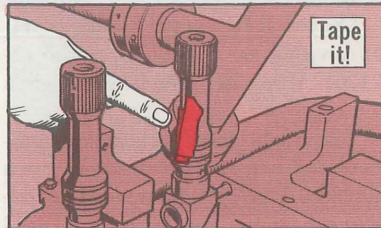
DRAT! DID OUR ARMORER SECURE HIS BORESIGHT ADJUSTMENTS WITH MASKING TAPE?

CAN'T B' LIEVE IT...

YOU MISSED TH' BROAD SIDE...

Tape It!

will be thrown off and the pilot won't be able to hit the broad side of a barn!



Adjust only the eyepiece to your individual needs.

When you armorers boresight the AH-1S (Modernized) weapons sub-systems, make only one barrel adjustment on the 4 boresight telescopes.

When installing the telescopes, as explained in Para 7-2.3 of TM 9-1090-206-30, you need a clearly defined projected reticle image at infinity. No sweat!

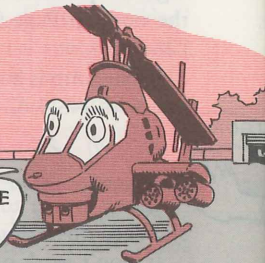
Once you get the adjustment, tho, use a piece of masking tape to hold it. Otherwise, your other adjustments

Back to Square One



YEP, OL' SNAKE--I'M GONNA LET YOU HAVE IT WITH MY TRUSTY GREASE GUN!

FINE... AND DON'T FORGET A SHOT OF WTR GREASE FOR MY OLD STYLE SERVO CYLINDERS!

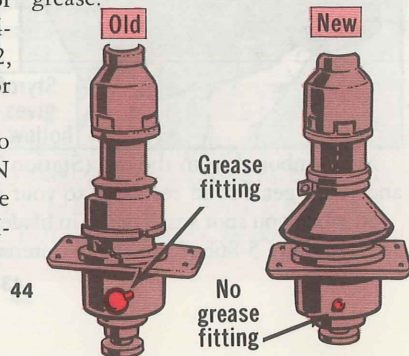


When you AH-1S (Modernized) mechs make your rounds with the grease gun at 100-hr intervals, focus on the 3 hydraulic servo cylinders.

There is a temporary shortage of the new type servo cylinder, PN 204-076-511-9, NSN 1650-01-016-3572, which doesn't have a grease fitting for the bearing—no lube needed.

You may now have an old servo cylinder, PN 204-076-005-7 or PN 204-076-005-11, which has a grease fitting—lubrication needed! The AH-1S manuals won't be revised.

In that case, disconnect the rod-end from the pitch control lever or swashplate horn and make with the wide temperature range (WTR) grease.



First Aid Kit Check

Turn in aircraft first aid kits for inspection every 24 months, crew chiefs, according to Para 10-7 in TM 55-1500-328-25 (Apr 81). Individual aircraft pubs with a 12-month check are being updated.

Black Hawk Manuals

If you've just taken delivery on some UH-60A aircraft and you don't have enough TM 55-1520-237-series manuals to support 'em, alert your pubs clerk. The details on ordering pubs (from the Baltimore Publications Center) are in DA Pam 310-10-2.

Compass NSN Change

The NSN for the magnetic compass, Item 5, Fig 109, in TM 55-1520-236-23P shows up on the AMDF as a "terminal" item and is no longer available, Cobra mechs. So use NSN 6605-00-225-2383 when you need a replacement.

Cement Code Changing

You can't get cement, NSN 8040-01-084-3861, to fix the drooping door seals on your OH-58's—at least not yet. Right now, the cement's coded for depot use only in the Acquisition Advice Code (AAC) column on the AMDF. The code's being changed, tho, so units can get it. Until the change makes the AMDF, you can use cement, NSN 8040-00-165-8614.

Warning Streamer NSN's

Need "Remove Before Flight" red warning streamers? Get them with these NSN's:

NSN	Length
8345-00-863-9170	36-in
8345-00-995-7806	30-in

Use Appendix A, CTA 50-970 as the authority to get these.

Safety-of-Flight Messages

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

AH-1-81-30 Maint Notice, Transmission oil line MS87028KOB2D180 DRSTS-MEA 011300Z Oct 81
 AH-1-81-31 Maint Notice, AH-1S tail rotor pitch change horn retaining nuts DRSTS-MEA 081400Z Oct 81
 AH-1-81-32 Maint Notice, AH-1 main rotor blade P/N 540-011-001-5 NSN 1615-00-847-7461 DRSTS-MEA 211940Z

Oct 81

AH-1-81-33 Maint Notice, Service life of hot metal plus plume IR suppressor P/N 1914-30-5-2 NSN 1560-01-093-4756 DRSTS-I 221330Z Oct 81
 OH-58-81-07 Cancel Msg OH-58-81-07 DRSTS-MEA 221945Z Oct 81

OH-58-81-08 Maint Mandatory, RCS CSGLD-1860, Maint procedures check for OH-58 DRSTS-M 202130Z Oct 81
 UH-60A-81-26 Operational, Limits for UH-60A Black Hawk turbulence and thunderstorm operation TM 55-1520-

237-10 DRDAV-EEB 061515Z Oct 81
 UH-60A-81-27 Technical, RCS CSGLD-1860, One-time inspect UH-60A Black Hawk shaft assy, engine output, P/N 70361-08004-042, TB 55-1520-237-20-25 DRDAV-EEB 051800Z Oct 81
 UH-60A-81-28 Technical, One-time inspect UH-60A Black Hawk deswirl duct, P/N 70070-30011-108 and clamp, P/N 12172-1568, TB 55-1520-237-20-26 DRSTS-MEA 261945Z Oct 81
 Cat 1 EIR Phone: AUTOVON 693-2066 (24-hr)



AN/VIC-1 Intercom...

Tune in to the Crew

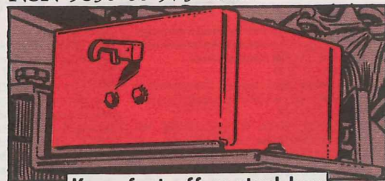
You tracked-vehicle types need to make sure your whole crew has one thing in common: Commo. When you're running a fighting machine, your AN/VIC-1 intercom set needs to be on track.

IF OUR BLANKETY-BLANK INTERCOM WAS WORKING, I'D TELL THE DRIVER TO STOP FOR SOME PM TIPS!

READ THESE TIPS ON HOW TO KEEP THE INTERCOM SYSTEM IN YOUR ARMORED "OFFICE" IN SHAPE!

No Feet

Never play Big Foot with the C-2296 intercommunication set control box on the outside of your vehicle. That's not a step. If you need a foothold, get the protective bracket, NSN 5830-00-973-4888.

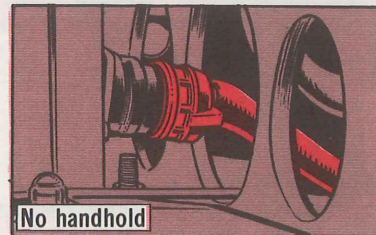


Keep feet off control box

No Hands

Hands off the cable which feeds the control box, too. It's not a handhold. Grabbing it can damage the cable or its connector. Find another way up.

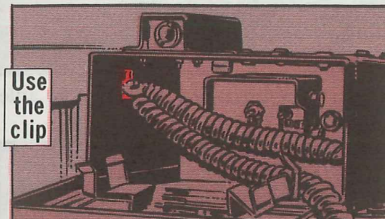
When the M60A1 tank's power plant goes in or comes out, it can smash the cable if it's not out of the way along the engine compartment wall. Warn the repairman.



No handhold

Handset Hints

Lighten up on the H-207 handset cord's control set connection by using the clip on the box's inside wall.



Use the clip

Through with the handset? Stow it. A few tons of tank can mash it if you leave it outside.

The box lid is sharp enough to cut



Tuck the cord safely inside

the handset cord. Make sure the cord is tucked safely inside before you shut the door.

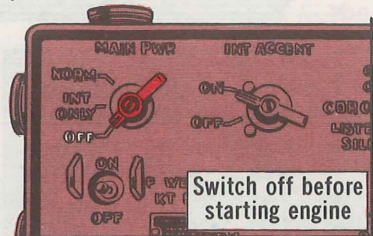
Take it easy on the door. Slamming it can damage the pre-formed packing. That can let in moisture. When the water gets to the circuits inside, it's bye-bye commo.

REPLACE DAMAGED PACKING WITH THESE STOCK NUMBERS...

Control Box	Packing NSN
C-2296, -2298, -2299	5330-00-095-2256
C-2297	5330-00-884-2491
C-2742	5330-00-892-4111

No Overloads, Please

Shut off your commo gear before you start your vehicle's engine. That keeps a power surge from zapping your receiver-transmitter.



Make sure your vehicle has a MX-7778 transient suppressor to guard against surges, too.

Save vehicle batteries by running your vehicle when the radio's on, if possible.

Use a light touch when you turn the AM-1780 amplifier's dimmer knob. When it catches, stop. Wires twist when you go too far, which strains the assembly's insulator. Pretty soon, your amp short-circuits.

HEY-- WE'RE NOT TRANSMITTING OR THEY'RE NOT RECEIVING!

NO RESPONSE FROM ALFA 5, SERGEANT!

MAYBE THEY GOT THEIR CABLES SWITCHED AGAIN!

Tighten Connections

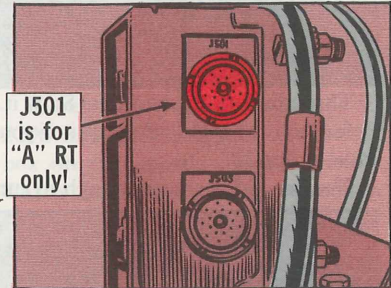
Tighten up cable connections for good commo. Disconnect the cable before tightening receptacle rings,



tho. If you don't, pins could break. Make sure the cable insulation looks good and that cable clamps on the vehicle wall are OK.

Your intercom has a lot of CX-4723 cable assemblies. Be sure they're hooked up correctly to the AM-1780 amp. Like, leave plug J504 for the

vehicle commander. He must be able to talk to anyone, at any time.



Plug J501 is for your "A" receiver-transmitter only. The plug is built for the vehicle's 24-volt system. The other plugs are not. Wrong connections can mean an overdose charge and a burned-up amp.



?GULP? WHAT MAKES YA THINK I LEFT MY CVC IN TH' RAIN, CONNIE? ?BLURB?



OK, OK!!... I B'LIEVE YA NOW WHEN YA SAY THURGOOD IS ALL WET WHEN IT COMES TO COMMO PM!



Remember Your CVC

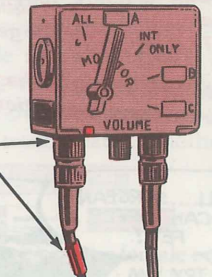
You heard about the guy who would forget his head if it weren't hooked on. That's the way it is with some troops and their Combat Vehicle Crewman's Helmet (CVC).

F'rinstance, remember the helmet is a brain bucket, not a water bucket. Keep moisture out. Never leave it outside with the shell down like a turtle on its back. A rain will fill it and knock out your commo.

Even rightside up, your CVC soaks up moisture. Make sure your earphone gaskets are OK. Your support checks them and replaces bad ones. Add a little insulating compound, NSN 5970-00-181-0190, on the screws and cord leading to the earpiece.

When you hook up your CVC, match the yellow band on the receptacle with the yellow band on the cord.

Match bands on receptacle and cord!



Switched cords will give you a hot mike. That overrides everybody's commo. Test to see if you're hooked up



right. Move the selector switch on your CVC forward. If you key the radio, you're OK. If you get an earful of squelch, switch connections.

TM PM

For more info on the intercom system, scope out TM 11-5830-340-12. TM 11-5820-401-12 and -10-2 describe radio set components. Chap 5 of TM 10-8400-201-23 will answer CVC questions.



...AND THAT'S THE WAY IT IS... GOOD PM IS BASED ON THE RIGHT TM!

AN/GRC-46
RATT Rig...

Generation

Gap

CHUG-CHUG-CHUG-CH-CHUG-CH

Dear Macon,
Our unit has 4 AN/GRC-46 radio teletypewriter sets, each powered by a 3-KW generator set.

Trouble is, I don't think a 3-KW set is big enough. When all equipment in our RATT is turned on, the generator kicks out.

Nothing I've tried has worked. Do you have any suggestions?

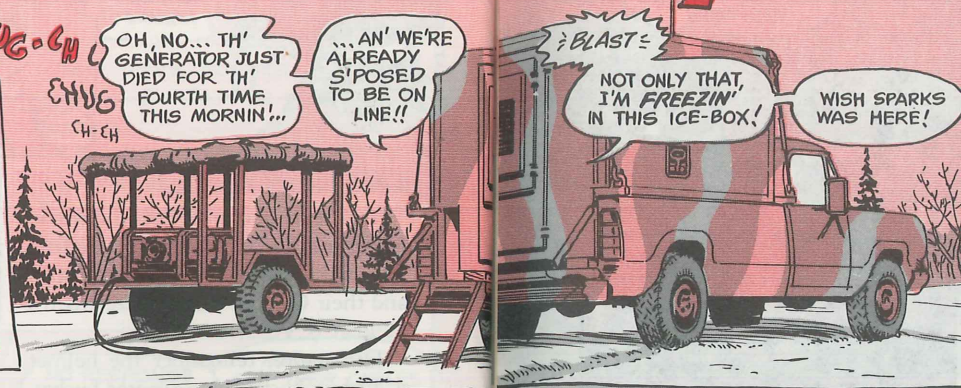
SFC C.H.

WELL... SERGEANT, I CAN OFFER A FEW!

TRY 'EM IN THIS ORDER...

OH, NO... TH' GENERATOR JUST DIED FOR TH' FOURTH TIME THIS MORNIN'...

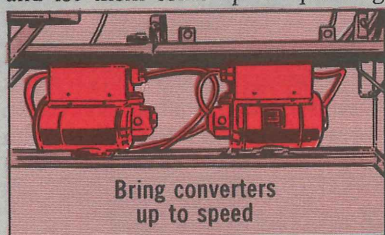
...AN' WE'RE ALREADY S'POSED TO BE ON LINE!!



NOT ONLY THAT, I'M FREEZIN' IN THIS ICE-BOX!

WISH SPARKS WAS HERE!

- Turn on the rotary converters and let them come up to operating



Bring converters up to speed

speed before any other load is applied. Then, switch on the gear one piece at a time, the biggest energy user first.

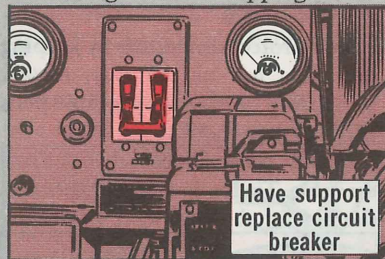
This assures the largest surge will come while there's still the greatest margin between current being drawn and that to be drawn.

(One big drain to watch is the shelter's heater. The generator won't power it and a keyed radio at the same time.

So, if you need to warm up, run the heater before you start communicating. Then, the operating gear

should keep you comfortable. If not, warm up the shelter while the radio is not transmitting.)

- Replace the rig's current circuit breaker with a time-delay type, NSN 5925-00-898-4180. This breaker will take a surge without tripping.



Have support replace circuit breaker

- If your power supply shows poor voltage stability, high ripple and/or voltage transients, it's a candidate for your maintenance shop.

As a stop-gap, you can stabilize the voltage somewhat by putting a 24-volt battery in the circuit across your generator set and the -46.

Pack It Away — Cleanly

Before you slip OE-254 antenna group mast sections together, be sure they're clean.

If you don't, getting them apart again can be a chore.

You slip 'em together to save room when packing your antenna in its transit bag. Those sections fit together snugly. Trouble is, pieces of tape or dirt will wedge 'em together tightly.

A quick once-over cleaning will save you time and trouble later. Another

Female ends join



labor-saver is to insert the female end first. That gives you a good handle for separating the sections.

REMEMBER-- CLEAN IS THE ONLY SCENE WITH THESE MAST SECTIONS!

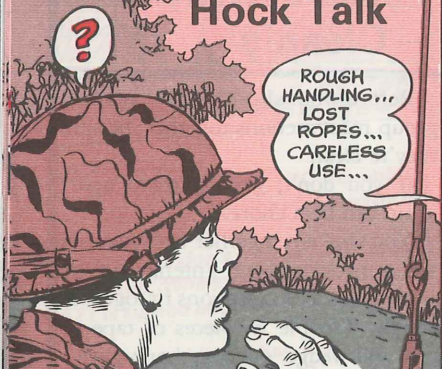
GOTCHA, MACON!



AB-22's New NSN

The NSN for the AB-22 mast section shown in Fig 1 of TM 11-5820-348-24P has been changed to NSN 5985-00-372-0970.

Hock Talk



Keeping Pair-26 cable able means treating hock plastic and pins with care.

Crooked or rough hookup will KO those rows of contact pins. Line up the connector and then receptacle, squeeze them together.

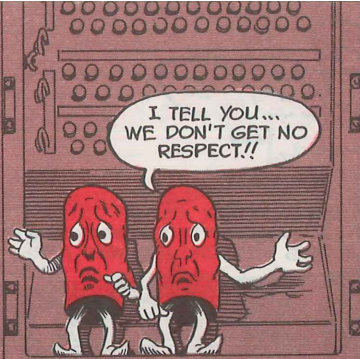
Once they're straight and mated, fasten both connector locks at the same time. That insures even pressure on pins.

Turn locks at same time



Remove 'em the same way—straight. Then use the receptacle covers to keep out dirt and moisture.

If you've lost the ropes that keep those covers handy, order some by the foot with NSN 4010-00-222-4482. NSN 4030-00-431-5536 brings a swaging sleeve to fasten the rope. A



Need ropes and sleeves?



compressing tool to crimp the sleeve is NSN 5120-00-323-2292. Your authority for these items is Appendix A, CTA 50-970.

You protect connectors by keeping the cable out of the way, too. A stepped-on or driven-over cable pulls hard on those hookups.

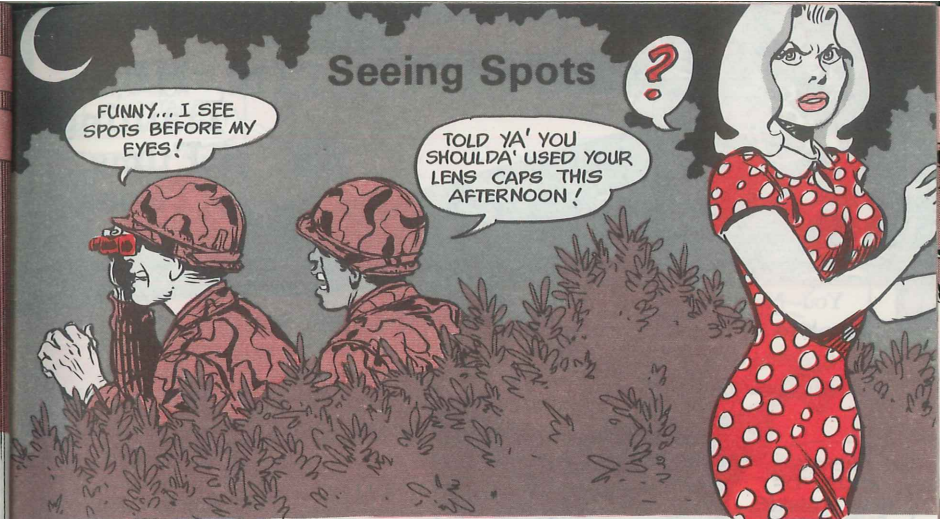
Finally, protect hocks when you reel the cable. Tie the covered connector to the rim of the reel with field wire.



Tie hock to reel for protection

That keeps it from getting kicked or knocked around.

Seeing Spots

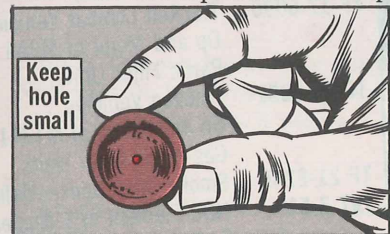


If you see spots when you use your AN/PVS-5 night vision goggles, turn 'em in.

Spots mean bright light has KO'd your image intensifier. If those spots are in your field of vision, they make night sighting a no-go.

Stop spots with lens caps when you're not using the goggles—especially where bright light can zap 'em.

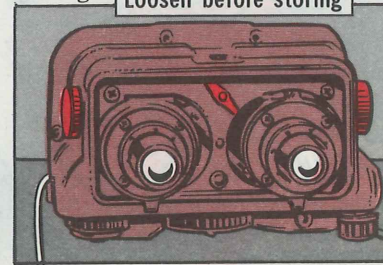
Protect yourself! Leave the small hole in the lens caps small. That cap



keeps you hidden when you're using infrared (IR) illumination. The bigger the hole, the more IR is visible—to the enemy.

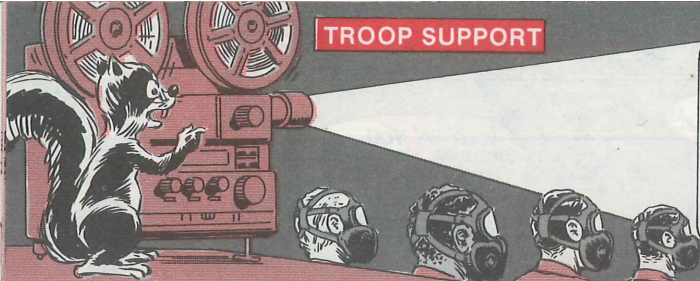
Save your battery by turning your goggles OFF if you don't need 'em for a while. IR is a big battery drainer. Use it only when you're 'sposed to, like in extreme darkness. Forget IR for reading.

Loosen before storing



Loosen the lever clamp and clamp knobs when you store the set in its case. This lets the monoculars "float" when the case is closed. If you leave the monoculars latched in position, the lid hits them and damages the goggle face.

For a final face-saver, use the focus knob to draw the lenses back into the set.



NBC Training Films, Tapes

You NBC types can send your people to the movies to help get them up to speed on nuclear, biological and chemical warfare training.

HERE'S
A LIST OF
NEW TRAINING
FLICKS AND
TV TAPES YOU
CAN GET...

MORE FILMS
AND TAPES ARE
IN THE WORKS...

WATCH
FOR THEM!

See TEC Lessons in the ETM Status List at your local Training and Audiovisual Support Center (TASC). Also, try the Chemical School, Fort McClellan, AL 36201 (AUTOVON 865-5453/4417) for training films, tapes or info.

Older films and tapes are listed in DA Pam 108-1.

TF 3-6121	M256 Chem Agent Detector Kit
TF 3-6123	Emergency and Partial Decon
TF 3-6124	Complete Personnel Decon
TF 3-6125	Nerve Agents—First Aid and Decon
TF 3-6126	ABC M12A1 Decon Apparatus, Pt 1
TF 3-6127	ABC M12A1 Decon Apparatus, Pt 2
TF 3-6155	M7A1 Gas-Partic Filter Unit in Field Hosp
TF 3-6158	Intro to Automatic Chem Agent Alarm
TF 17-6095	Tracked Combat Vehicles Equipped with Gas-Partic Units/Vented Face Piece (M25A1 masks)
TF 17-6096	Tracked Combat Vehicles: Op and Maint of M8A3 Gas-Partic Filter Units
TF 17-6097	Tracked Vehicles: Op and Maint of M13A1 Gas-Partic Filter Units
TF 21-6245	Smoke Operations—Defense
TVT 3-51	NBC Element in a Nuclear Environment
TVT 3-53	Chemical Protective Clothing
TVT 3-55	Mission Oriented Protective Posture (MOPP)



M17/M17A1 Sanitizing

When you sanitize your M17/M17A1 protective mask, resist the urge to pull it inside out.

For instance, if you yank by the nose cup, you'll pull the cup loose...or off. That means a repair job by your support. Or, salvage.

Never
yank on
nosecup

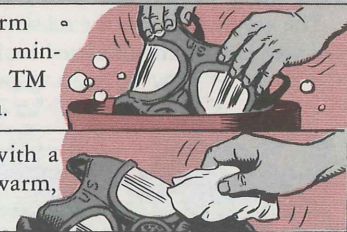


RATHER THAN CAUSE
DAMAGE OR CREATE A
POSSIBLE HAZARD BY
TURNING THE MASK
INSIDE OUT,
DO THIS...

- First, remove the filter elements, eyelens outserts and hood.

- Dip the mask in warm soapy water for 2 to 3 minutes, like Page 3-14 of TM 3-4240-279-10 tells you.

- Or, wipe the mask with a clean cloth dipped in warm, soapy water.



If you loosen the nose cup while cleaning, have your NBC NCO check it out. Protect yourself...or the next person who has to use the mask.

Lace Your Booty

Broke a shoestring on your chemical protective footwear cover (booty)? NSN 8335-01-107-6998 gets a pair of shoestrings. In a pinch, use cord or twine to lace the booty. You'll need a 7 foot string, plus or minus 2 inches.

Be an Editor

That's right. You can be an editor. Tell MSG Half-Mast (or Connie or Bonnie, if you prefer to write to girls) what you want to see printed in PS Magazine. That way you can act a bit like an editor and get info printed that will help you and other troops keep their equipment maintained.

THE
ADDRESS
IS...

PS Magazine
Lexington, KY
40511

Protective Masks, Carriers...

Hold the Soap...



Hold the soap suds when you clean your protective mask carrier. A bubble bath could shrink your carrier so it won't hold your mask. Clean the carrier with a barely-damp cloth or with a soft-bristled brush and clear, cool water.

The "no soap" word goes for all carriers, like those for the M17/M17A1, M24 and M25/M25A1 masks.

Don't use soap on the carrier



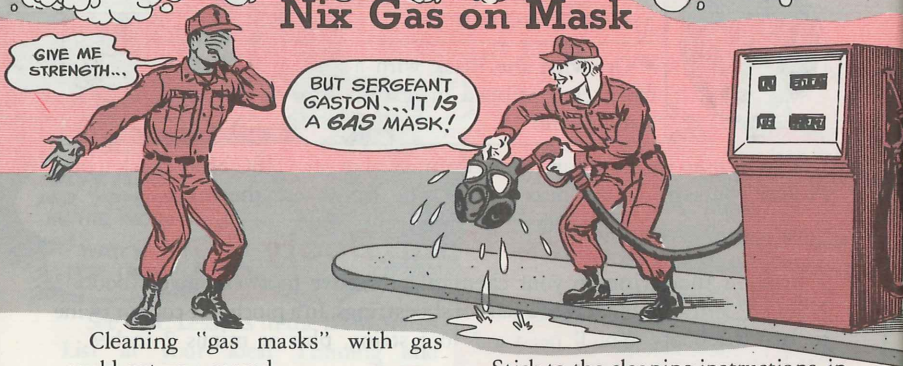
Never grease face or mask

...Hold the Grease

Never grease your face or protective mask with lubes like petroleum jelly to try to make a better seal with your M17/M17A1, M24 or M25/M25A1.

The greasy stuff rots the rubber and causes mask leaks. A leaky mask makes you a sucker for chemical and biological agents.

Nix Gas on Mask

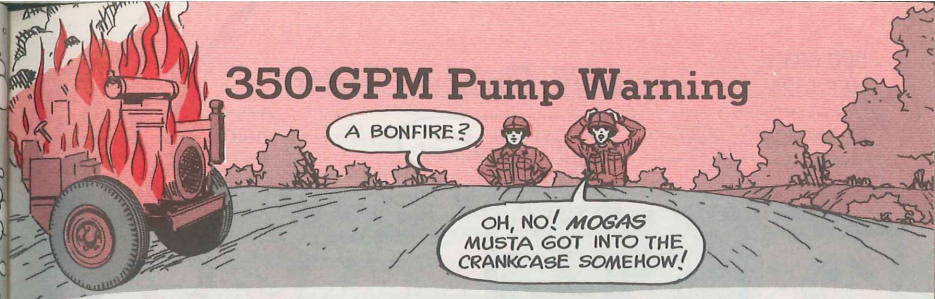


Cleaning "gas masks" with gas could get you gassed.

Never try to clean protective masks like the M17/M17A1, M24 or M25/ M25A1 with gasoline, diesel fuel or other "homemade" cleaners. That stuff rots the rubber in the masks. That's bad news when a chemical or biological agent hits you.

Stick to the cleaning instructions in TM 3-4240-279-10 and TM 3-4240-280-10. Use a clean cloth dipped in warm, soapy water and wrung out almost dry. Wipe with a barely-damp cloth dipped in rinse water. Dry the mask with a lint-free cloth or let it air-dry.

350-GPM Pump Warning



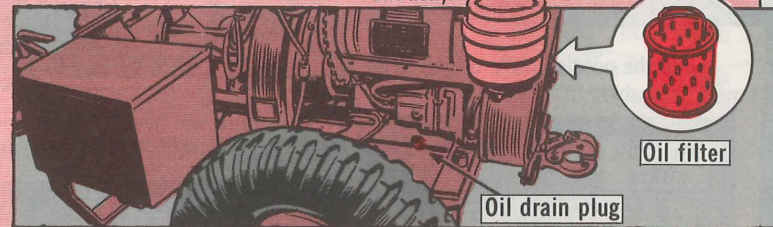
A fire hazard exists with some Peabody-Barnes and Gorman-Rupp model flammable liquid pump assemblies—LIN P97051.

Mogas gets into the engine crankcase thru the camshaft port because of faulty fuel pump diaphragms. The diluted engine oil also causes moving parts to wear out faster...could cause an expensive major engine overhaul job.

PM Test Poop

Pull this test before operating one of these pumps:

- Drain and refill the crankcase with 6 quarts of new engine oil.
- Hook up the pumping assembly to a clean water source and let it run for 4 hours under load.
- Stop the engine and wait a few minutes to let the oil drain down to the crankcase.
- Check the oil-level dipstick for overfill or extremely thin oil (gasoline dilution).



- If there's no overfill or oil dilution, it's OK to operate your pump assembly.
- If you find too much—or diluted—oil in the crankcase after shutdown, you've got a deadlined pump.

Fix it soonest with a new fuel pump repair kit, NSN 2910-01-005-0414. It'll take about an hour if you follow the poop in Chap 4 of the pump assembly TM.

Hold one! Be sure you change the oil and the oil filter after you put on the new fuel pump kit parts.

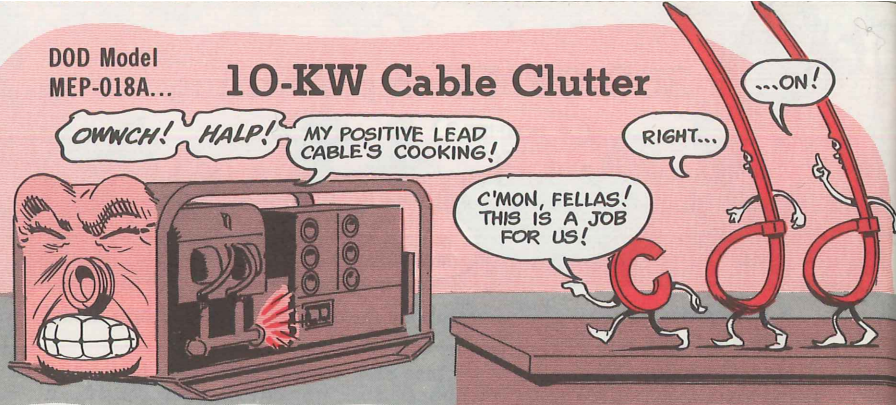
TM 5-4320-272-12 IS FOR PEABODY-BARNES!

TM 5-4320-242-14 IS FOR GORMAN-RUPP!



DOD Model
MEP-018A...

10-KW Cable Clutter



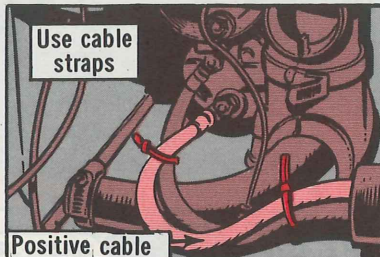
Positive leads—cables—on the 10-KW GED generator sets are “cooking” on the left exhaust manifold. They’re burning thru the auxiliary slave receptacle’s positive cable insulation, short-circuiting the system.

HERE'S
HOW TO PUT
SOOTHING PM-
SALVE ON THE
“BURN”...



GEE...
THAT'S SIMPLE,
BONNIE!

- Put the positive cable on top of the negative cable.

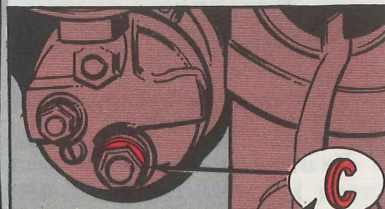


Use cable straps

Positive cable

- Tie the cables together with 2 self-clinching, adjustable cable straps, NSN 5975-00-074-2072. Place straps 4 inches apart starting 4 inches from the terminal. This'll stiffen the cables...they'll have less droop.

- Be sure you have a helical, spring-lock washer, NSN 5310-00-637-9541,



Washer NSN 5310-00-637-9541

- under the nut that holds the positive cable to the starter solenoid. Make sure the nut is tight. This will keep the cables taut and stop the saggies.

Mil Std Engines...

Oil Drain Extension

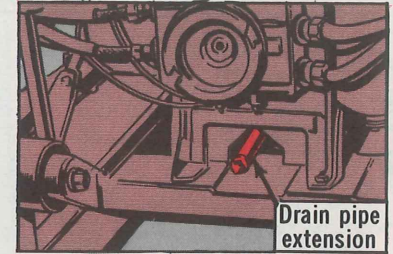


Changing the engine oil on small GED generators is a messy job. Here's a little helper that will save parts replacement and maintenance cleanup time.

Get drain pipe extension, NSN 2805-01-045-9735. It screws into the engine oil drain opening. The magnetic oil drain plug, NSN 4730-00-778-0441, screws into the end of the extension.

Operators can use a box or open-

end wrench on the plug. Never butcher it up with lock pliers or the wrong size deep well socket.



Drain pipe extension

Small GED
Generators...

Make Safety Clips

Replacement safety clips for ground and load terminal studs on your small GED generators are not in the supply system.

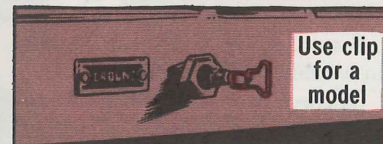


Use on MEP Model

NSN 9505-	002A	003A	016A	017A	018A	021A	022A	023A	026A
00-804-3814 .042-in			L-G			L-G			G
01-049-0144 .050-in	L	L			L			L	L
00-596-1668 .051-in				L-G	G		L-G	G	
00-221-2661 .046-in	G	G							

L = Load terminal

G = Ground terminal



Use clip for a model

Use a clip from a stud for the pattern.

If you need safety clips for larger size generators, use NSN 9505-00-596-1662 for 0.090-in wire.

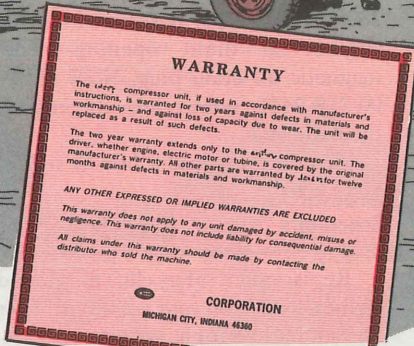
Think Warranties... Save Money



EQUIPMENT
WARRANTIES HELP!

THEY
CAN...

- Save your outfit a bundle of bucks
- Reduce your maintenance workload
- Help keep your unit mission-ready



WARRANTY

The 12-volt compressor unit, if used in accordance with manufacturer's instructions, is warranted for two years against defects in materials and replaced as a result of such defects.

The two year warranty extends only to the 12-volt compressor unit. The driver, weather engine, electric motor or turbine, is covered by the original manufacturer's warranty. All other parts are warranted by J&J for twelve months against defects in materials and workmanship.

ANY OTHER EXPRESSED OR IMPLIED WARRANTIES ARE EXCLUDED

This warranty does not apply to any unit damaged by accident, misuse or negligence. This warranty does not include liability for consequential damage. All claims under this warranty should be made by contacting the distributor who sold the machine.

J&J CORPORATION
MICHIGAN CITY, INDIANA 46360

"Warranty Exhibit." Then file a warranty claim on DA Form 2407.

Send the DA Form 2407 claim to your direct support. They'll handle it from there and advise you of any future action.

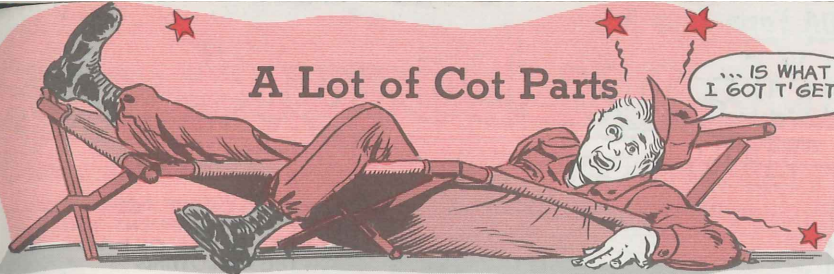
Give your DSU all the help you can. They need the equipment's original requisition number, contract or purchase order number, stock number, manufacturer, model, serial number, part number, description and reason for failure—if you know it.

Para 12-2, TM 38-750 has the word on warranty reporting.

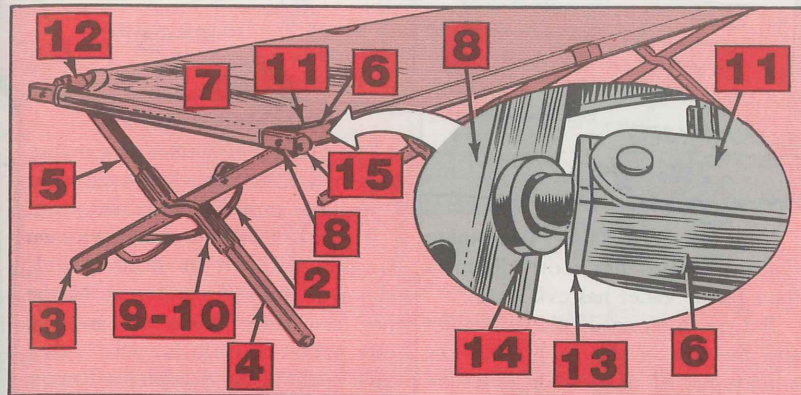
So check those packages inside and out for a warranty notice or card.

A Lot of Cot Parts

... IS WHAT
I GOT T'GET!



True, NSN 7105-00-935-0422 gets you an aluminum folding cot...and this number is the only one that will be supported in the future.



HOWEVER, THERE'RE
STILL MANY WOOD
COTS, NSN 7105-
00-269-9279,
IN THE FIELD!

HERE ARE SOME
REPLACEMENT
PARTS NSN'S...

ITEM	WOOD COTS NSN 7105-00-	ALUMINUM COTS NSN 7105-00-
1 Rail, end	113-0002	
2 Strap, folding	113-0003	113-0003
3 Leg, long	119-4327	935-0425
4 Leg, lower half	119-4359	935-0427
5 Leg, upper half	173-5214	935-0426
6 Rail, side	173-5408	935-0423
7 Cover, OD	935-1845	935-1845
8 Stick, end		935-0424
9 Support, cross leg, left		935-0428
10 Support, cross leg, right		935-0429
11 Support, top leg, right		935-0430
12 Support, top leg, left		935-0431
13 Plug, dowel		935-0433
14 Plug, spacing		935-0434
15 Plug, end		935-0435
16 Support, center top leg		935-0432



Many Disguises, Many Uses

CONTROL NO. 218359	1. ORGANIZATION 4th Bn, 12th Armor	8. FEDERAL STOCK NO. 1758-00-968-6321	9. SERIAL NO. C5786
6. NOMENCLATURE Carr Per	7. MODEL M113A1	10. PURCHASE ORDER NO.	
11. YEAR OF MFG M-71	12. MANUFACTURER (MFG Code)	13. CLASSIFICATION	14. REPORT PERIOD
16. TYPE REPORT	17. REPORT CODE C	18. MILES 175	19. DATED TO UIC
g. ACCEPTANCE AND REGISTRATION		20. RECEIVED FROM g. ORGANIZATION	
b. USAGE ✓			
c. TRANSFER			
d. LOSS			

DEPENDING ON THE AGE AND TYPE OF EQUIPMENT, YOU MAY NEED TO FILL OUT ANY OF THE FOLLOWING DA FORM 2408-9 REPORTS...

DA FORM 2408-9
OCT 72

Your DA Form 2408-9 Equipment Control Record has more disguises than Darth Vader has evil deeds.

But you don't need Luke Skywalker and the rest of the gang to do the unmasking. All of those disguises are there for a reason—to help you keep up with the comings and goings of your equipment.

Before you fill out a DA Form 2408-9, make sure your equipment needs it. See if your gear has an X under the DA Form 2408-9 columns in Appendix E of TM 38-750, or if it's covered by the vehicle registration program in Chap 7 of AR 710-3.

When both pubs say your equipment needs a DA Form 2408-9, one set will do. Never make out duplicates for the two programs.

Watch it! The vehicle registration program may ask for DA Form 2408-9's on some items not listed in TM 38-750.

Acceptance Report

The DA Form 2408-9 Acceptance Report is filled out when equipment first comes into the Army inventory.

If you receive equipment with no Acceptance Report, contact the people who sent you the equipment. Maybe they can track down the missing information or form for you. If they can't, could be no Acceptance Report was ever sent in. Fill out a DA Form 2408-9 Gain Report with your unit info in Blocks 1, 2 and 3 and send the NMP copy in.

However, if the equipment arrived at your unit with a report that was later lost or destroyed, you just fill out a "logbook" copy Acceptance Report to replace it.

For equipment that comes under the vehicle registration program in AR 710-3, the Acceptance Report doubles as a registration report. It shows the registration number assigned to the equipment.

Older gear may still have a DA Form 2408-8 Acceptance Report. Keep it! That form's still good.

Gain Report

A Gain Report is needed when an item comes into the Army inventory from sources other than a manufacturer or local procurement or is added to Appendix E of TM 38-750 with an X in that form's column.

You also need a Gain Report when you pull items permanently out of higher assemblies—like the generators and trailers in your power unit.

Loss Report

A Loss Report tells the headshed an item has been lost, destroyed or permanently integrated into another system or item.

Transfer Report

Your DA Form 2408-9 Transfer Report tells the headshed when equipment PCS's from one organization to another.

When you transfer equipment, your "shipped to" report tells the computers at Lexington where you sent the gear.

The unit receiving the equipment sends out a "received from" report telling the computer to add the equipment to their UIC.

NSN or Serial Number Redesignation Report

Make out a DA Form 2408-9 NSN Redesignation Report whenever there's a change in the NSN of a DA Form 2408-9 reportable item.

This report clears the old numbers and adds the new ones. It shows the new numbers as well as old information from your Acceptance Report. Trashcan the old form when the new one is sent in. The new report becomes the permanent record.

Usage Report

Usage Reports give the number of miles, hours or rounds on your equipment. The headshed uses the information when buying replacement items and POL and to figure out how well the equipment stands up.

Fill out a Usage Report on all equipment with an X under the DA Form 2408-9 Usage column in Appendix E of TM 38-750. Para 5-8b (2) (b) 1 of TM 38-750 tells you when.

Rebuild/Overhaul Report

The Army depot or contractor who rebuilds or overhauls your equipment fills out the DA Form 2408-9 Rebuild/Overhaul Report.

You won't get a copy, but they'll make a note in the Remarks Block of the Acceptance or Gain Report telling you about it.

The Rebuild/Overhaul Report lets the headshed know when to go out for new equipment.



HOW YOU FILL OUT YOUR DA FORM 2408-9 DEPENDS ON THE USE OF THE FORM!



HERE'S A TABLE TO HELP YOU FIGURE OUT WHICH BLOCKS NEED ENTRIES FOR THE DIFFERENT FORMS...

DA FORM 2408-9 ENTRIES

MAKE ALL ENTRIES LEGIBLE!

- T— Transfer Reports Only
- X— Entry Required
- **— Special Instructions for Administrative Use Vehicles
- AUV—Administrative Use Vehicles

BLOCK	BLOCK TITLE	ACCEPTANCE/REGISTRATION		TRANSFER/GAIN LOSS/NSN RE-DESIGNATION		USAGE/REBUILD-OVERHAUL	
		AUV	Non-AUV	AUV	Non-AUV	AUV	Non-AUV
1	Organization	X	X	X	X	X	X
2	Location	X	X	X	X	X	X
3	UIC	X	X	X	X	X	X
4	Utilization Code	**		**	X	**	X
5	Vehicle Use & Sup Code	**		**		**	
6	Nomenclature	X	X	X	X	X	X
7	Model	**	X	**	X	**	X
8	NSN	X	X	X	X	X	X
9	Serial Number	X	X	X	X	X	X
10	Registration Number	X	X	X	X	X	X
11	Year of MFG	**	X			**	X
12	Manufacturer	X	X				
13	Contract Number	X	X				
14	Purchase Order Number	X	X				
15	Warranty Period	X	X				
16	Type of Report	X	X	X	X	X	X
17	Report Code	X	X	X	X	X	X
18a	Hours					X	X
b	Miles					X	X
c	Rounds (Weapons Only)					X	X
19a	Shipped To-Organization			T	T		
b	Shipped To-UIC			T	T		
20a	Received From-Organization			T	T		
b	Received From-UIC			T	T		
21	Remarks	X	X	X	X	X	X
22	Signature	X	X				
23	Julian Date	X	X	X	X	X	X

Even with all its uses, you won't have trouble keeping up with the logbook copies of the DA Form 2408-9. The Acceptance or Gain Report stays with the gear for its life—until it is "lost" to the Army's inventory.

You keep the latest Transfer and Usage Reports just for 90 days from when you filled them out. Then, trashcan them. Check your SOP, first. Some commands want you to keep those forms longer.

Connie's Mini Minis

CONNIE-- I GOT A MAINTENANCE PROBLEM!

MY CVC'S PICKIN' UP BEETHOVEN...

... AN' I CAN'T STAND CLASSICAL MUSIC!

"Danger" Arrow NSN

That's a wrong NSN in PS 343, Page 23, for the "Danger" arrow used on the M917 dump truck's tachograph. You get the arrow with NSN 7690-00-924-4318. This's the same arrow used on the tachometers in other trucks.

175B Scoop Loader

How do you get the SAE J1703 (70R-3) brake fluid your Model 175B Clark Scoop Loader needs? You don't need it. Mil Spec VV-B-680 brake fluid meets all the requirements so you can use it. NSN 9150-00-190-0932 gets a pint and 9150-00-231-9071 gets a gallon.

"Now Hear This!"

If you're in the Army's navy and you maintain a MOD 1 landing craft, make a note in your TM 55-1905-217-20P. The engine tachometer (Item 9, Fig 93) won't work on your LCM-8. The tachometer you need is NSN 6680-00-168-0574, PN 1549866, FSCM 70040.

All About Oil Analysis

If you didn't get a DA Pamphlet 750-5, Army Oil Analysis Program Guide for Leaders, order copies on DA Form 4569 from the Baltimore Publications Center. It tells who does what in AOAP.

* U.S. GOVERNMENT PRINTING OFFICE: 1982—559-009/3

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

TB 43-0211 Miscue

TB 43-0211, Army Oil Analysis Program (AOAP) Users Guide on Nonaeronautical Equipment (May 81), throws a curve on Page 19. The TB tells you the DA Form 2408-20 will be kept with the DD Form 314. Not so. Put your DA Forms 2408-20 in a consolidated logbook binder as Para 5-3 of TM 38-750 tells you. Keep the binder handy for the people using the DD Form 314.

Hot Check

The IR heat suppressor on your Cobra is no longer replaced at 225 hours. It's now a "condition" item. Just make routine checks as explained in TSARCOM Msg AH-1-81-33. TM 55-1520-236-23 is being updated with the inspections.

Aircraft Transfers

You aircraft TAMMS people make a note in TM 38-750. There's a goof on Page 10-56, Para 10-35c (3) (n) and (o), on filling out a DA Form 2408-9. The book says leave Blocks 19 and 20 blank for a Loss, Transfer, Gain or NSN Redesignation Report. Not so for a Transfer Report! Fill in Block 19a and b Shipped To when you're transferring gear out and put a 1 on line 17c. Fill in Blocks 20a and b Received From when reporting a transfer in and your line 17c shows a 2.

REACHED THE END OF YOUR
PROBLEM-SOLVING ROPE?

Here's **HOTLINE** Help

Call these AUTOVONS at any time, 24 hours a day:

- ★ Tanks, small arms and missile guidance/control systems for LCSS, ground and air TOW, Dragon, LANCE, Shillelagh .. 694-6582
- ★ CH-47..... 977-6408
- ★ Aircraft..... 861-2651
- ★ Cat 1 EIR (Aircraft) 693-2066
- ★ M113 FOV (incl Vulcan, Chaparral) 829-3100
- ★ Power generation eqpt, wheeled vehicles, Redeye, topo eqpt 790-2129
- ★ All howitzers, M578, FAAR, FADAC, ground guidance & shop/test eqpt for I-HAWK & Nike Herc 242-7693
- ★ Commo/Electronics (Sacramento)..... 839-2839
- ★ Commo/Electronics (Tobyhanna)..... 795-7900

HOLD ONE! Before you call, check out your problem with your DSU and local DARCOM Logistics Assistance Office. They may be able to help you!

After you do what the **HOTLINE** folks tell you to do, call 'em back and let 'em know how it worked—or didn't work!

