

Issue 382

PS

September
1984

THE PREVENTIVE MAINTENANCE MONTHLY

FIRST PLATOON
SAYS ITS RADIO
JUST WENT DEAD!

STAND BY...
HERE COMES
ANOTHER
ONE!

HELP

Commo Killers Exposed
See page 29

PS THE PREVENTIVE MAINTENANCE MONTHLY

Published by the Department of the Army for the information of all soldiers assigned to combat and combat support units, and all soldiers with organizational maintenance and supply duties. Within limits of availability, older issues may be obtained direct from Editor, PS Magazine, c/o US Army Materiel Readiness Support Activity, Lexington, KY 40511-5101.

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

MSG Half-Mast
PS Magazine
Lexington, KY
40511-5101

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M109-Series SP Howitzers...



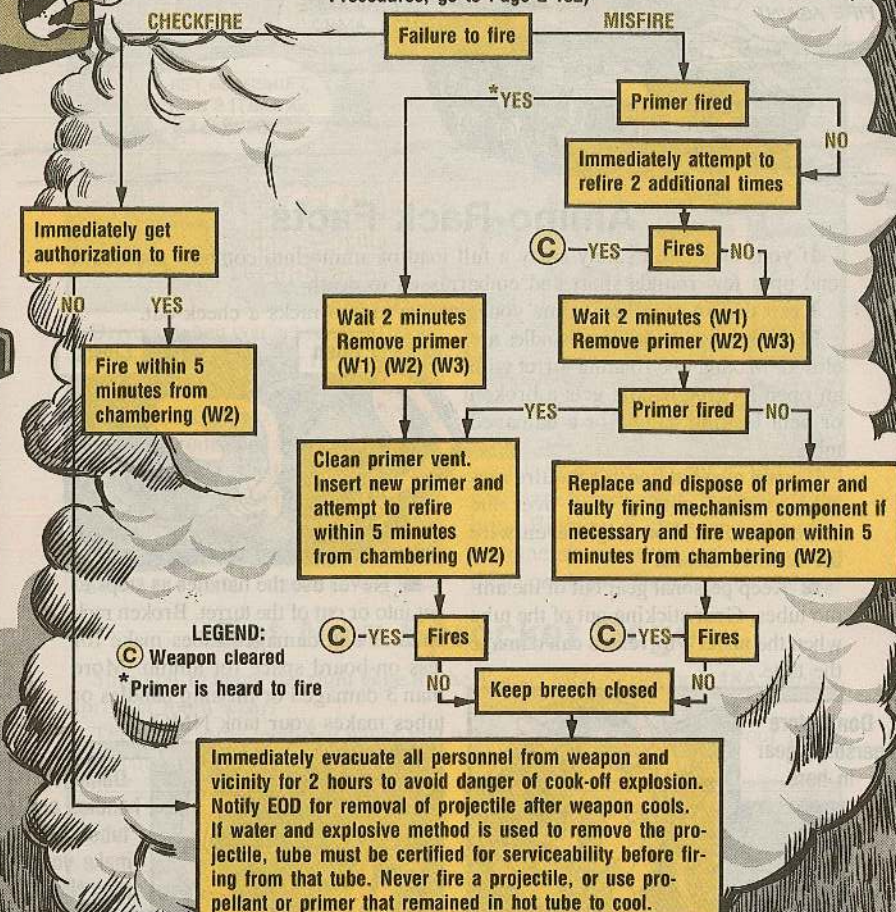
The hot tube misfire procedures on Page 2-96 of TM 9-2350-217-10N and Page 2-168 of TM 9-2350-303-10 are wrong and could put you gun crews in danger.

If you open the breech to unload the weapon within 5 minutes of a misfire or a checkfire, you could be exposed to propelling charge cook-off because of the hot tube.

HERE ARE THE CORRECTED PROCEDURES YOU MUST FOLLOW!

HOT TUBE MISFIRE PROCEDURES

Charge 2 thru 8 (For Charge 1 Procedures, go to Page 2-102)



LEGEND:
C-Weapon cleared
*Primer is heard to fire

HAZARD

WARNING
(W1) Keep weapon trained on target. Evacuate personnel except CS and No. 1 cannoneer.
(W2) Stand clear of recoiling parts, don't put hand behind primer vent.
(W3) The primer can be expelled rearward should there be a sticker (charge 2 only).

HAZARD

M60-Series Tanks...



Ammo Rack Facts

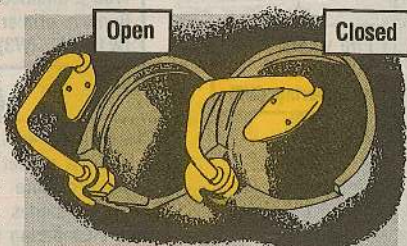
If your tank can't safely carry a full load of ammo in combat, you could end up a few rounds short and embarrassed to death.

Keep that in mind next time you give the ammo racks a check-out.

■ Make sure the locking handles are closed. Mixing one rotating turret with an open locking handle gets a broken or bent locking handle or a damaged tube.

If your mission doesn't require ammo, consider putting tape over the closed handles. You might even wire the handles closed.

■ Keep personal gear out of the ammo tubes. Gear sticking out of the tube when the turret's traversed can damage the tube.



■ Never use the handles as steps to get into or out of the turret. Broken rack handles and damaged tubes make for less on-board space for ammo. More than 3 damaged or missing handles or tubes makes your tank NMC.



Don't store personal gear in here

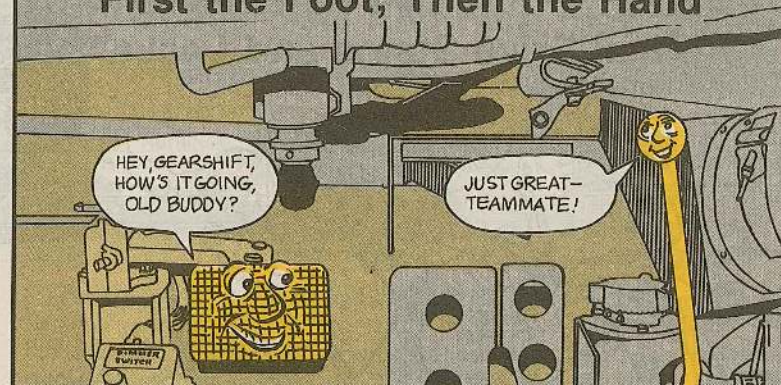


If your tank still has the older, long-style rack handles, switch over to the shorter ones. Use NSN 5340-01-039-8593 for the left rack (you'll need 15 handles) and NSN 5340-01-039-8594 for the right rack (11 handles needed).

Even with the shorter handles, you still have to pay attention to what you're doing. Remember, you don't want to go off half-loaded.

M48A5/M60-Series Tanks...

First the Foot, Then the Hand



Drivers, when you get ready to move out, remember that your first move involves your foot.

You'll get nowhere real fast if you try to jerk your shift lever out of park without first releasing the parking brake. The lever can bend or break off under the strain.

The brake and the shift lever work together as a team. Together, they keep

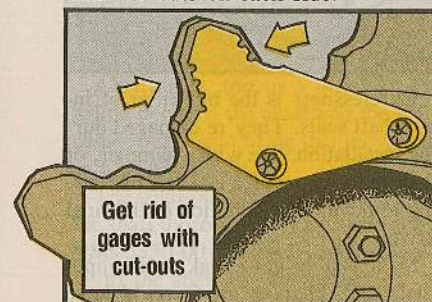
your tank where you put it. But when you want to move out, the brake's the boss. Fighting it just won't pay off.

Remember, use your foot first and then your hand. Then keep on tanking.

Get New Sprocket Gage

Sure you're using the right gage to check your M60-Series or M48A5 tank's sprocket tooth wear?

There are some modified gages that won't do the job. They have four 1/16-inch cut-outs on each side.



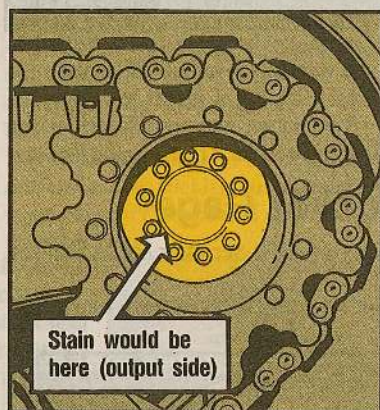
Remember! Gages are used to measure wear only on sprockets without wear mark indicators on them. TM 9-2350-253-20-1 gives the full procedure.

Final Drive Stains and Leaks



That dirty oil stain on the output shaft side of your tank's final drives got you worried?

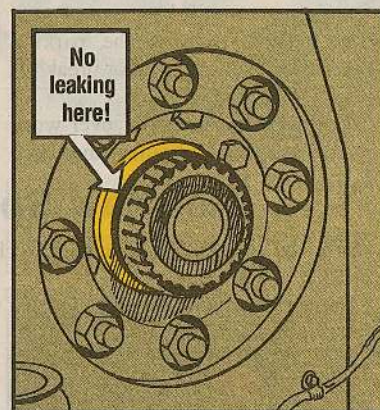
getting past that seal. And no oil will come past the seal unless it's been damaged.



Relax. The wetness is normal for the output shaft seal. That's because the seal needs lube, too. Otherwise, it'll wear out long before its useful life is over.

Of course, once the output shaft seal starts dripping oil, it's time for the final drive to go to support for repair.

It's a different story, mechs, with the input shaft seal. You don't want any oil



Carelessness is the big killer of input shaft seals. They're damaged during installation, like with a hammer, or they're torn up with a tanker's bar during removal or installation of the final drive.

So if you've got a leak at the input shaft seal, chances are it could have been prevented. Take it easy with the force... and follow the TM's.

Grease Seal Flip-Flop Flap



You say you've been pumping grease into the upper roadwheel arms on your tank till you're blue in the face—and nothing comes out to prove it?

Could be the inner and outer seals are in backward. If they're installed wrong, grease shoots right past the seals and piles up inside the hull.



Unless you've got a roadwheel arm that won't hold grease at all, you can schedule the seal check and replacement for the next quarterly service. Otherwise, you need to make the check and replacement now.

For the full story on how to install the seals, see TB 43-0001-39-1 (Apr 84).

M60A3 Tank...

Laser in a Bind?

Free and easy. That's the way the AN/VVG-2's receiver-transmitter should move on its support shaft.

All it takes, tho, is a little dirt and grime between the shaft and the RT's center bearing to bring that movement to a grinding halt.

The solution? Have your mech clean the shaft thoroughly with crocus cloth, NSN 5350-00-221-0872, when the RT is off the shaft for maintenance.

The cloth is an expendable from the list on Page C-1 of TM 9-2350-253-20-2.



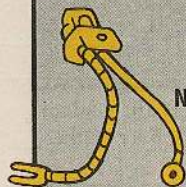
I'M SURE GLAD
YOU HAD THE
DOME LIGHT FIXED!

YEAH! AND IT DIDN'T
COST AN ARM AND
A LEG, EITHER!

Dome Light Blues

There's light at the end of the tunnel, combat vehicle mechs! You can repair your vehicle's **dome light** without having to spend more than 4 times what a new one costs.

Use 2 assemblies,
NSN 6250-00-337-7465,
at \$3 each . . .



. . . instead of this
assembly,
NSN 6250-00-112-0475,
that costs
\$160!

Seems that one of the lamp holder assemblies, NSN 6250-00-112-0475, showed up on the AMDF costing \$160. That NSN has been dropped from the supply system because the light itself costs about \$35.

It works out that the other lamp assembly can be used to repair the light. Until the expensive holder is replaced, use 2 holder assemblies, NSN 6250-00-337-7465. They're about \$3 each.

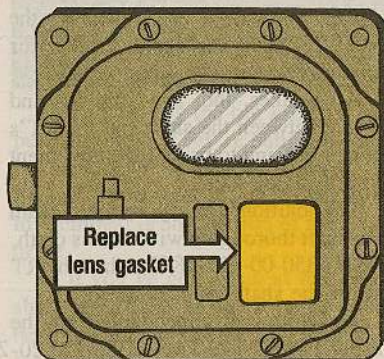
Don't go looking for these NSN's in your vehicle's -20P. They're not listed. They are available, tho, for organizational use.

Lens Gasket

Before you install that new blue blackout lens in your vehicle's dome light, make a move that can save the lens from cracking.

Replace the lens gasket. That old gasket won't do the job because it lets the lens bottom out against metal. Then when you tighten the screws—crack!

You need gasket, PN 12343072, FSCM 19207. Also, when you tighten the screws, just tighten until they're seated right. Then back off about half a turn on the 3 screws around the blue lens.



C'MON GUYS,
LET'S BEAT
THOSE CLOGS!

Grease Fitting Caps

YEAH, WE'LL
CAP 'EM
CLEAN!

CLEAN FITTINGS,
FOREVERMORE!

Dear Half-Mast,
Our rebuilt M60A3 tanks came with small protective caps over the grease fittings. The caps are real handy for keeping the fittings clean and unclogged during field exercises. It's simpler to remove a cap than to replace a clogged fitting. How do we get more of these caps for all our tanks?

1LT C.B.R.

Dear Lieutenant C.B.R.,

The caps were put on by the depot to protect against paint and dirt during rebuild. They were not intended for field use or replacement. But if they're doing a job, you can get them with NSN 4730-00-289-8148 for about four cents each. You can use them on other vehicles that have grease fittings, too.

Half-Mast

M1 Tanks . . .

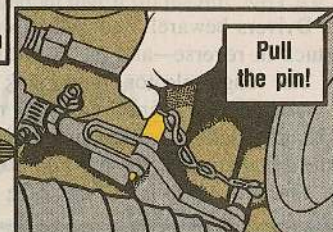
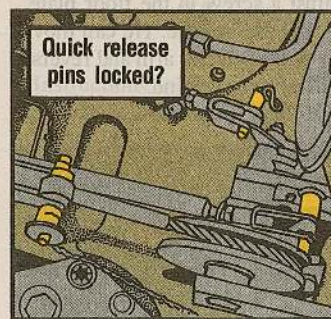
Not-So-Quick Release

It's just dandy for the quick-release pins in your steering and brake linkages to release quickly when you mechs want them to.

It's not so dandy when they come loose on their own—like when the tank's moving out down the trail at 30 MPH.

Push
here
to
release
locking
mechanism

Dirt and corrosion can jam the retaining mechanism. That means the pin won't lock in place. Vibration jars the pin loose, causing loss of control.



Whenever you install a quick disconnect pin, make sure the retaining mechanism (spring-loaded balls) is holding the pin firmly. Just pull on the pin. If it comes out, clean it or replace it with a new pin.

Spring-
loaded balls

Easy On, Easy Off

DID YOU USE
SOME COMPOUND
ON THAT FINAL
DRIVE?

Apply
compound
to mating
surfaces

Breaking a final drive loose from the hull of a M110A2 howitzer or M578 recovery vehicle can be a real tough job. It can be even tougher if the final drive has been in place for a long time and rust has built up between it and the hull.

Prevent that rust build-up by using corrosion preventive compound, NSN 8030-00-231-2345.

Next time you've got a final drive off, apply a little of the compound to the mating surfaces of the final drive and the hull just before you reinstall the final drive.

Of course, be sure to clean away all the rust and crud first.

Remember, easy on with the corrosion preventive compound and easy off with the final drive.

M548/M730 Vehicles...

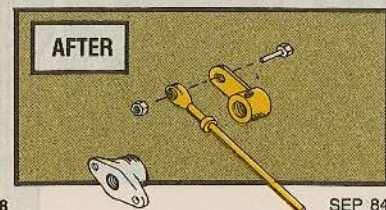
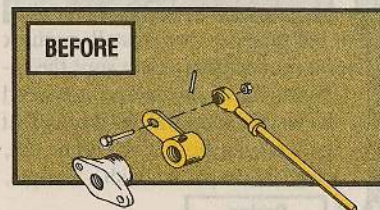
Stuck in Reverse

Drivers beware! Your M548 or M730 can turn into a one-way machine—stuck in reverse—and the consequences are downright dangerous.

The range selector control link can bind against a screw in the floor plate.

Don't take a chance. Get your mech to check out the linkage. He can move the range selector control link to the opposite side of the selector arm and reverse the installation of the nut and bolt. Then it will no longer bind.

The procedure is in Para 2-7g of TB 43-0001-39-1, (Apr 84).



8

SEP 84

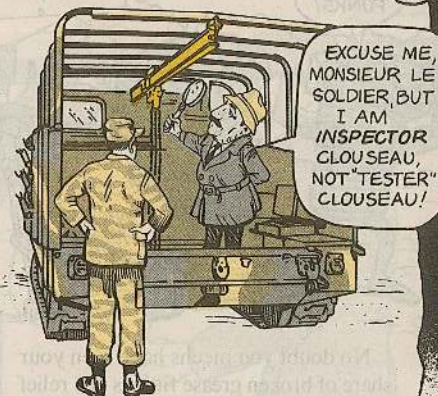
Inspected, Not Tested

Dear Half-Mast,

Item 52 of the M548 cargo carrier's PMCS says the carrier is NMC if the hoist and sling haven't been load tested in the past 12 months.

TB 43-0142, Safety, Inspection and Testing of Lifting Devices, says load testing of hoist beams and slings is not required. All they get is a periodic inspection. What gives?

SSG D.J.B.



Dear Sergeant D.J.B.,

TM 9-2350-247-10 will be changed to agree with the TB. Slings and hoists require a periodic inspection every 12 months, not a load test. Of course, your carrier would be NMC if the inspection hasn't been made in the past 12 months.

Half-Mast

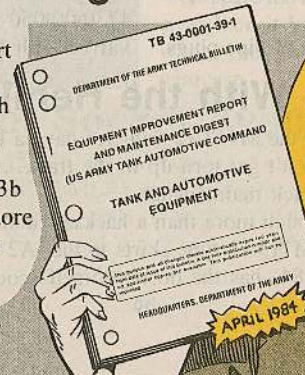
M88A1 Dual Regulator Info

Looking for some troubleshooting help for the dual regulator system on your M88A1 recovery vehicle? Would a wiring diagram help, too? Your TM's are a whole lot short on this subject, so ask your local TACOM Logistic Assistance Representative for help. He's got a 14-page handout that'll fill the bill. No LAR contact? Drop a note to MSG Half-Mast.

More Light for M88A1

Instructions to convert the rigger's blackout light and selector switch to a white service light are in TB 43-0001-39-1 (Apr 84). Paragraph 3-3b has the details to put more light where you riggers can sure use it.

SEP 84



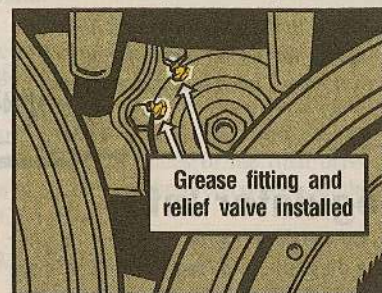
SEE
PARA
3-3b!

Plugs, Fittings and Valves



No doubt you mechs have seen your share of broken grease fittings and relief

valves on M113-series vehicles roadwheel arms. You can't lube until you replace the fittings.



Well, you can solve the problem of broken fittings the next time you pull a quarterly service.

Get yourself a supply of pipe plugs,



fittings and relief valves with pipe plugs.

LO 9-2350-261-12 for the M113A2-series vehicles tells you to do it. The good word also holds up for M113A1-series vehicles.

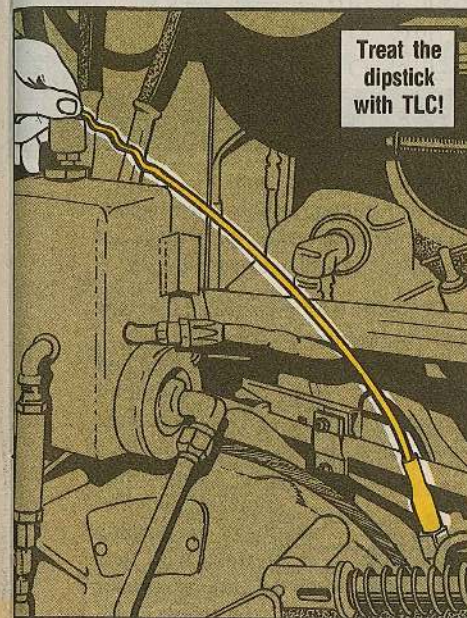
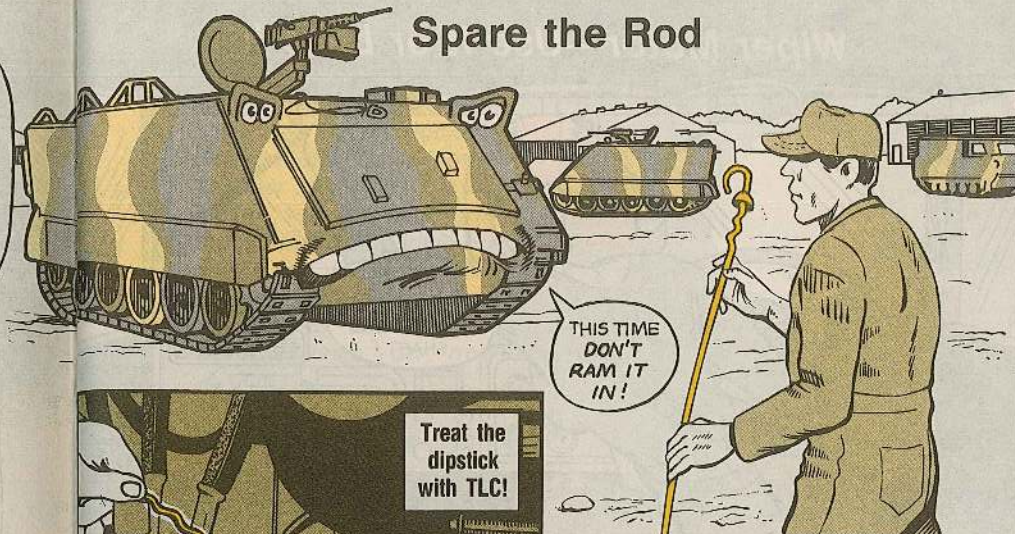
If you need lube fittings, use NSN 4730-00-050-4208. You can get relief valves with NSN 4820-01-070-7670.

Up With the Hemline!

The shorter skirts on the M113A2 vehicles have a lot more going for them than just style. They don't get torn up in the track... and you don't have to remove them to pull track maintenance.

Now, with nothing much more than a hacksaw and a pair of heavy shears, you can convert your M113A1 type skirts to the -A2 type. Item Para 3-3e in TB 43-0001-39-1 (Apr 84) has the do-it-yourself scoop.

Spare the Rod



You won't spoil the child, or in this case the carrier, if you're real careful when you handle the transfer gearcase gage rod (dipstick).

If you ram the gage rod into the gearcase, it can end up with a big bend or kink in it. And if that big bend is on the lower 3 inches of the rod, the rod gets chewed up by the gearcase innards.

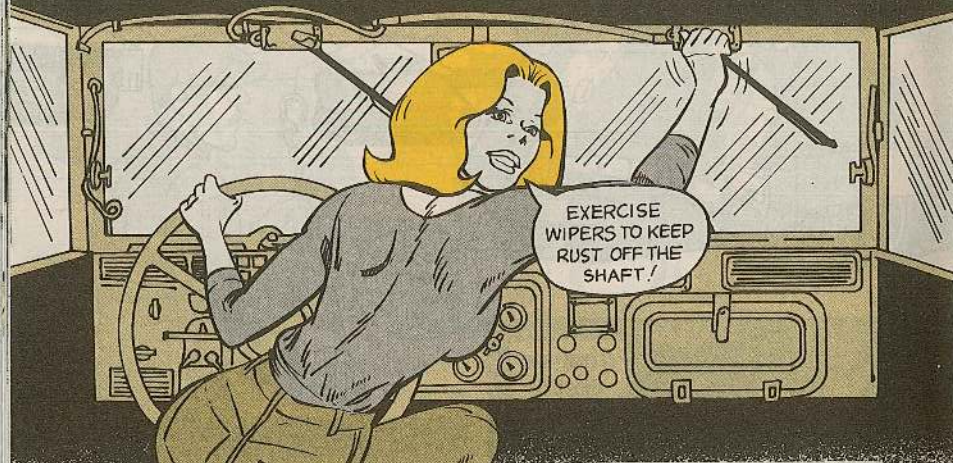
Naturally, there's going to be a little bend in the rod. Getting it in and out of the gearcase puts a bend in it. A little bend is OK.

So spare the rod. If it gets bent in use, straighten it by hand. And go gently when you put the rod back in the gearcase.

Better Socket Available

Socket, NSN 5120-00-181-6813, won't cut it for removing track pad nuts on M2/M3 Bradleys and the M993 MLRS carrier. It splits, and the hex points round off. What you need is socket, NSN 5130-00-227-6695, and adapter, NSN 5120-00-144-5207. They'll be added to your vehicle's BII the next time it's changed.

Wiper Motor—Use It or Lose It!



Rust can build up fast on your windshield wiper motor shaft.

So, when you hop into your truck, just reach up there and give the wipers some exercise by moving the manual paddle lever back and forth. If the lever catches or won't work freely, get your mechanic to work it over like so:

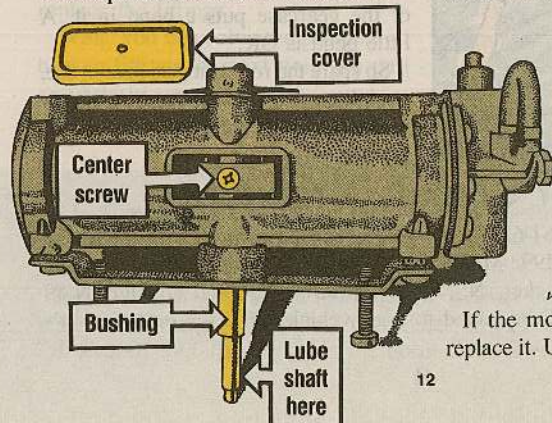
- ✓ Refer to the TM and remove the wiper motor.
- ✓ Lift the rectangular inspection cover from the motor.
- ✓ Line up the screw in the center of the inspection hole and remove it.
- ✓ Squirt 10W oil between the shaft and the bushing to loosen the rust.
- ✓ Install a nut on the threaded end of the shaft. Gently tap the shaft until it's loose. Remove the nut and pull the shaft out of the bushing and motor.

- ✓ Remove rust from the shaft and interior of the bushing (ferrule) with steel wool, fine sandpaper or emery cloth.
- ✓ Coat the shaft with GAA. Install the shaft, center screw and inspection cover.

- ✓ Install the wiper motor.

If the motor still won't work right, replace it. Use NSN 2540-00-391-4322.

SEP 84



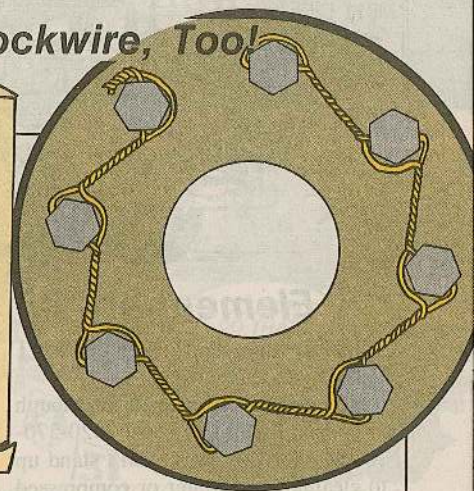
Oldies Get Lockwire, Too!

Dear Half-Mast,

Our older deuce-and-a-halves don't have lockwired bolts holding the adapter to the rear axle hub. The bolts loosen and fall out, scoring the drum and damaging brake shoes and wheel cylinders.

Is there any reason we can't convert to the lockwired setup that's on newer vehicles?

CW3 J.J.H.



Dear Mr. J.J.H.,

No reason at all. If you can get by, wait until the truck's in the shop for a semiannual service.

Bolts with drilled heads are in TM 9-2320-209-20P under NSN 5306-00-930-5248. You get lockwire with NSN 9505-00-191-3680.

It's important to lace the bolts together exactly right—so each bolt is supported by the next. This gets down to finer points of lockwiring than are in TM 9-2320-209-20-3-2, Para 14-5.

Half-Mast

Exhaust Systems Check... Pull the Plug!

Dear Half-Mast,

Some of our inspectors check for exhaust system leaks by plugging the tailpipe opening! Is this a good way to perform the check? We usually end up with leaks as a result of the test.

SFC R.D.B.

Dear Sergeant R.D.B.,

Never plug the tailpipe and run the engine of a vehicle. This causes back pressure that can damage the exhaust system—cause a leak—and hurt engine performance.

To find leaks, use just your eyes and ears. Check pipe joints for black smudges. Listen for puffing sounds when the engine is running.

Although Para 2-68(a)2 of TM 9-2320-266-20 on the M880-series 1¼-ton truck says to plug the tailpipe, that info will be dropped when the TM is revised.

Half-Mast

HER GOOD
INTENTIONS
ARE RUINING
MY ELEMENTS!

Element-ary Air Cleaner Service

The air filter elements on the M911 C-HET are throwaways.

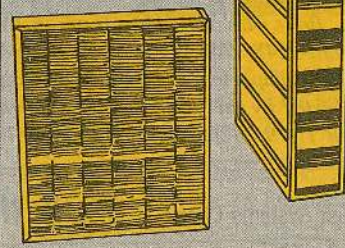
You don't clean them, even though Page 3-6, Task 13 of TM 9-2320-270-20 says you do. They won't stand up to cleaning with water or compressed air. Either method would ruin the fibers—the elements would lose some of their filtering capability.

Now you take out the filter elements quarterly. Tap them lightly against a hard surface to knock off the outside particles. If the elements are punctured or damaged, replace them.

Replace both air filter elements annually, or when the air restriction indicator turns red.

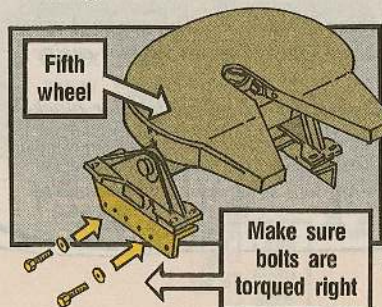
NSN 2940-01-049-7463
gets the primary element . . .

. . . and NSN 2940-01-
051-3493 gets the
secondary
element



Keep Fifth Wheel Tight

Don't get torqued-off at your M911 C-HET fifth wheel mounting bolts if they come loose. Could be they need checking more often.



If the bolts aren't torqued right, they loosen and cause the frame rail and mounting bracket holes to elongate. Then you'll have a loose fifth wheel that could fall off and cause someone a world of hurt.

At the next scheduled service, your mech will torque the 5/8-11 grade 8 bolts to 210 lb-ft. The 3/4-10 grade 8 bolts will get 375 lb-ft torque.

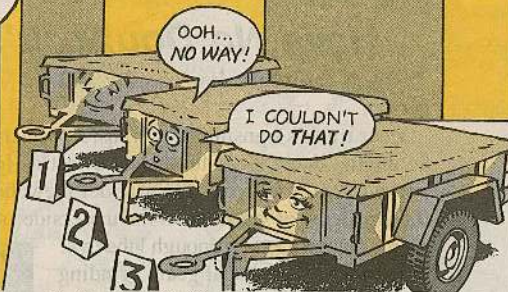
A semiannual check for torque on the bolts will be added to the PMCS in TM 9-2320-270-20.

CUCV Mating Game

NUMBER TWO, HOW
WOULD YOU FEEL
ABOUT CARRYING
750 lbs ON THE
HIGHWAY?

OOH...
NO WAY!

I COULDN'T
DO THAT!



Take another look at trailer-towing with the CUCV (Commercial Utility Cargo Vehicle). TACOM Msg DRSTA-RTC 051700Z Oct 83 clears up some points you find—or may be looking for—in TM 9-2320-289-10, Para 2-11, **LOADING THE TRUCK**, and Para 2-12, **TOWING A TRAILER**.

Other pubs in the picture are TM 9-2330-251-14 and TM 9-2330-251-14-1&P for the M416 and M416A1 ¼-ton trailers and TM 9-2330-202-14&P for the M101-series ¾-ton trailers.

M1009 ¾-Ton Truck

M1009 ¾-ton CUCV's are replacing both the M151-series ¼-ton trucks and M416-series ¼-ton trailers in some TOE's. If you're left with ¼-ton trailers, they can be towed by the M1009.

Maximum trailer payload is 500-lbs for both cross-country and highway travel. The 750-lbs for highway in the ¼-ton trailer TM's is a no-go.

If you have no ¼-ton trailers, remove and store the M1009 tow pintle to prevent towing any other trailers.

The M1009 can tow aircraft weighing up to 3,000-lbs for short distances on hard surfaces.

Diesel Fuel Leak

A Class I or Class II diesel fuel leak does not make your multifuel or diesel engine-powered equipment "not ready/available" under the -10 TM PMCS. Only a Class III diesel fuel leak does.

TACOM Msg DRSTA-M 151300Z Jan 81 made this point about "tactical wheeled vehicles," but the info applies to all multifuel and diesel engine-powered equipment. If your TM doesn't give you the straight story, it's due for a change or revision.

Gear Lube Low?...

LUBE LEVELS
DOWN -- IT'S
USING OIL!

NOT USING
-- IT'S LOSING!

Have No Doubt, It's Leaking Out

A gear case that's low on oil is leaking—there's no other way for the oil to get out.

Your truck's transmission, transfer, winches or differentials don't use oil like an engine does. Gear lube should last as long as the equipment.

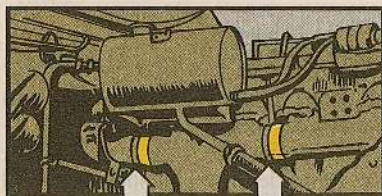
Your PMCS tell you to look under the vehicle for any signs of leakage. Check for any drips or wetness on the underside of the truck or on the ground. Even a slow leak can let out enough lube over time to leave dry metal gears grinding against each other. Picture that happening while your equipment is operating hot and heavy. You can kiss those gears goodbye!

Report any leak on your DA Form 2404. The problem could be a bum seal or gasket, or loose cover screws, for instance. Your mechanic can check it out before the gears check out for good!

Diesel/Multifuel Engines...

Diesel "Slobber"

If you spot some wetness like fuel or oil seepage around the exhaust manifold joints, don't panic. Could be your engine is suffering from "diesel slobber"—a chronic but not fatal condition.



Wetness here?
Don't panic!

The wetness is unburned fuel and condensation.

"Diesel slobber" is fairly common under certain conditions—high humidity and low temperature, and long idling without reaching operating temperature.

Before you send your truck to support for a cure, try giving it a good run. Or, if it's diesel-engine stationary equipment, run the engine at about halfway between idle and full speed for a few minutes. Then check to see if the wetness is gone. If it's still leaking, have your support check it.

M747 Semitrailer Brakes...

Lube Twice as Often

IS THAT
TRAILER DUE
FOR A BRAKE
LUBE ALREADY?

YEP--
IT'S EVERY
6 MONTHS
NOW, NOT
ONCE A
YEAR!



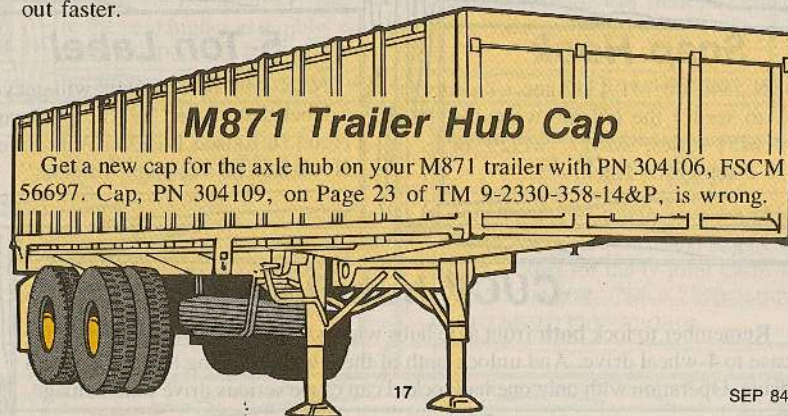
Shucks!

Turns out the 12,000-mile or 12-month interval for lubing brakes on the M747 semitrailer is simply not getting the job done.

The headshed says brake components now need to be lubed with BRH, NSN 9150-00-141-6700, every 6,000 miles or 6 months. At the same time, you mechs clean, inspect and adjust as spelled out in Para 4-30b and Para 4-31a of TM 9-2330-294-14.

The extra service will more than pay for itself in safety and reduced downtime.

Remember to replace all adjusting and inspecting hole covers. Missing covers are an open invitation to dirt and nasties that can make the components wear out faster.



M871 Trailer Hub Cap

Get a new cap for the axle hub on your M871 trailer with PN 304106, FSCM 56697. Cap, PN 304109, on Page 23 of TM 9-2330-358-14&P, is wrong.



HOW MANY BOXES
OF PM TIPS ARE WE
GOING TO LOAD?

HALF-MAST SAYS
AS MANY AS WE
CAN GET IN!

2½- & 5-Ton Trucks...

No Re-Use of Lock Nuts

If you're thinking about re-using the locking nuts on the propeller shaft mounting flanges, think again. Experience shows that once those nuts have been torqued, then removed, they won't lock when retorqued.

When you remove these locking nuts, throw them away. Use new locking nuts on the mounting flange bolts.

This info will be added to TM 9-2320-209-20-3-1, TM 9-2320-211-20-3-1 and TM 9-2320-260-20-3-2.

Snap Hook

NSN 5340-00-741-4347 gets a snap hook to secure the tailgate wings on your M51-series, M817, M929 or M930 5-ton dump truck.

5-Ton Label

NSN 7690-00-165-6608 will get you a label that states "Warning—Secure Hood In Raised Position With Safety Hook Before Servicing Engine."

CUCV Hub Rub

Remember to lock **both** front axle hubs when shifting your vehicle's transfer case to 4-wheel drive. And unlock both of them when shifting back to 2-wheel drive. Operation with only one hub locked can cause serious drive train damage.

Truck Air Supply Valve

You can get component parts for the air supply valve, NSN 4820-00-753-3853, that's under the dash on M35-, M39- and M809-series trucks.

Use NSN 4730-00-575-5404 for the cap and NSN 4010-00-564-2437 for the chain.

Order the hooks (2 per assembly) on a DD Form 1348-6. Use PN 7087505, FSCM 19207.

M416A1 Cap Better

An improved brake master cylinder filler cap, NSN 2530-01-131-7527, and gasket, NSN 5330-00-291-6658, are available for the M416A1 ¼-ton cargo trailer. The new cap is steel and won't seize on the threads like the aluminum cap does. Screw the cap down only finger-tight.

Tailgate Lock

NSN 2510-00-109-8212 gets a locking handle for the tailgate of a 5-ton dropside cargo truck. It's the same NSN that's in TM 9-2320-209-20P for 2½-ton vehicles.

Water Trailer

Some cable supply information didn't make it into TM 9-2330-267-14&P, Page D-15. For Item 21, use NSN 6145-00-152-6499. For Item 36, go to the next higher assembly, which is the harness assembly, Item 27. The NSN for Item 43 is 6145-00-705-6684.

Air Hose NSN

Trailer brake air hoses for your M818 or M52-series 5-ton tractor truck are not in TM 9-2320-260-20P or TM 9-2320-211-20P. NSN 4720-00-740-9662 will get you one hose assembly.

5-Ton Kit

NSN 2520-01-082-8691 replaces NSN 2520-00-039-7131 and NSN 2520-00-378-3016 for the U-joint kit in TM 9-2320-211-20P, TM 9-2320-260-20P and TM 9-2320-272-20P.



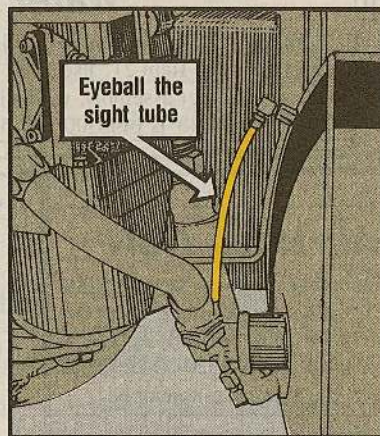
A leaky hydraulic hoist cylinder no longer makes your IH F5070 dump truck Not Mission Capable (NMC). That's a change to the PMCS chart on Page 68 of Part II of TM 5-3805-254-14&P1.

Before, any Class III hydraulic system leak meant your truck was NMC. Now, the hoist cylinder deadlines the truck only when it won't raise the dump body.

The headshed now says hoist cylinders are designed to leak up to a quart of oil during a normal operating day. This keeps seals lubricated and prevents rust on the cylinder.

If the hoist cylinder is sluggish or unsteady, the hydraulic reservoir may be low on oil. The sight gauge should

show FULL with the dump body down, and 1 1/2 to 2 inches of oil with the body raised.

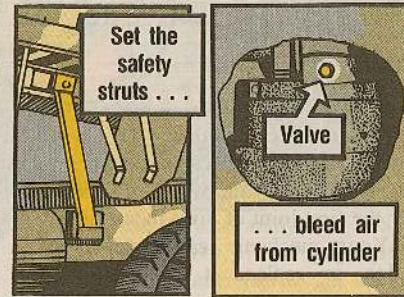


Down with Leaks

A sluggish dump can also be caused by air in the hoist cylinder. If your cylinder does not have an automatic air

bleeder—one with a hex shaped valve at the top of it—here's how to bleed the air without getting hurt:

1. Raise the dump body high enough to set the safety struts.
2. Climb up on the cab roof to reach the bleed valve.
3. Open the valve. Let it drain until a steady stream of oil comes out, then close the valve.
4. Remove the struts and lower the body.
5. Fill the reservoir to the FULL mark with OE/HDO 10W oil.



JD 410 Loader Backhoe...

Use the Right Oil



When it comes to oil for your JD 410, not all MIL-L-2104 oils are equal.

The transmission and hydraulic systems need a special 10-weight oil that is available only with these NSN's:

9150-01-090-5753—5 gallons

9150-01-090-5754—55 gallons

temperature range where you will be operating. Here's what oil to use:

Temp Range	Use this oil
Above 15°F	OE/HDO 30
-15° to 40°F	OE/HDO 10

For expected temperatures between -65°F and 40°F, MIL-L-2104 oils should not be used. Instead, use MIL-L-46167, OEA, Arctic lubricating oil.

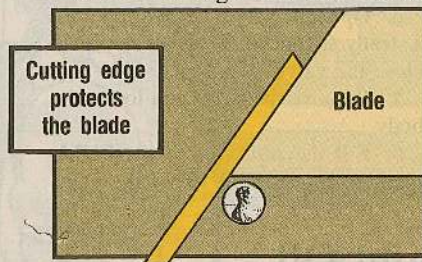
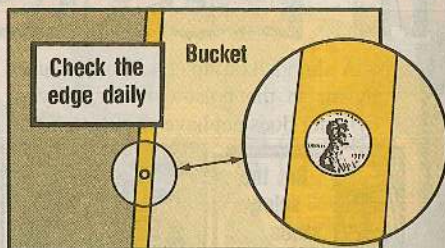
The right engine oil depends on the

Keen Edge = Sharp Operator

A worn cutting edge on your bulldozer, grader, scooploader or such is bad news.

The cutting edge protects the main part of the blade or bucket. If the edge gets worn down too far, the blade or bucket is damaged...and has to be replaced or sent to DS for repair.

Check the edge—and end bits on



blades and buckets—daily. If it's worn to less than $\frac{3}{4}$ inch at any point, report it. That's about the width of a penny or the first joint of your index finger.

Your mechanic can reverse the edge—or replace it if it can't be reversed.

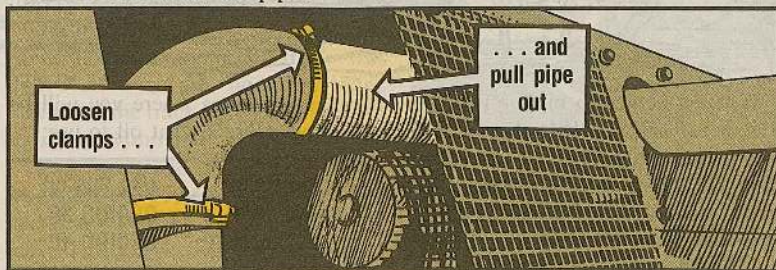
Keeping a good edge on your blade is a sign of a sharp operator!

SP848 Vibratory Roller...

Alternator Hangups

If you're having trouble getting the alternator belts tight, chances are the alternator is hitting the pipe from the air cleaner to the blower.

Loosen the hose clamps on the elbow above the blower. Pull the pipe out as far as you can and retighten the clamps. Make sure there's a good seal between the elbow and the pipes.

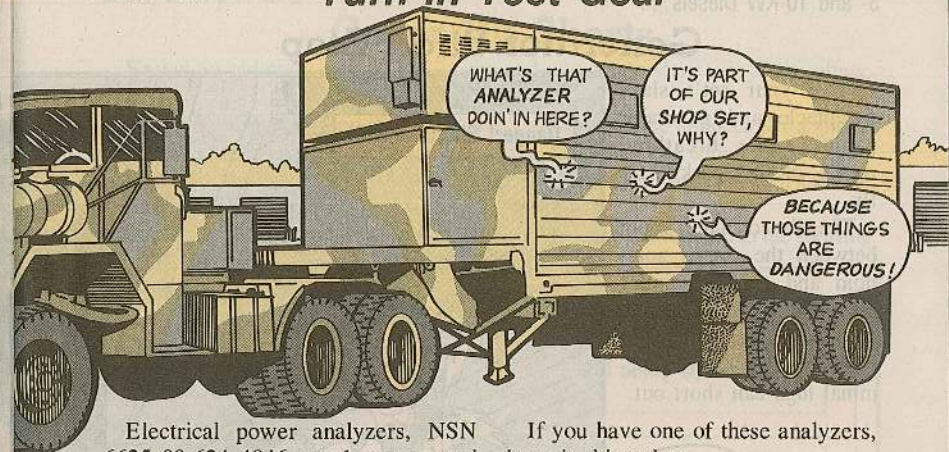


If you still can't get the belts tight, replace both belts...as a set.

Get a matched set of 2 belts with NSN 3030-00-208-7495.

Don't mix old and new belts. A new belt is slightly shorter than the old stretched belt. If mixed, the new belt carries the load and wears faster.

Turn in Test Gear



Electrical power analyzers, NSN 6625-00-624-4846, are dangerous and the headshed wants you to get rid of them. Severe burns—even electrocution—are possible because of non-insulated terminals.

If you have one of these analyzers, have it shipped to:

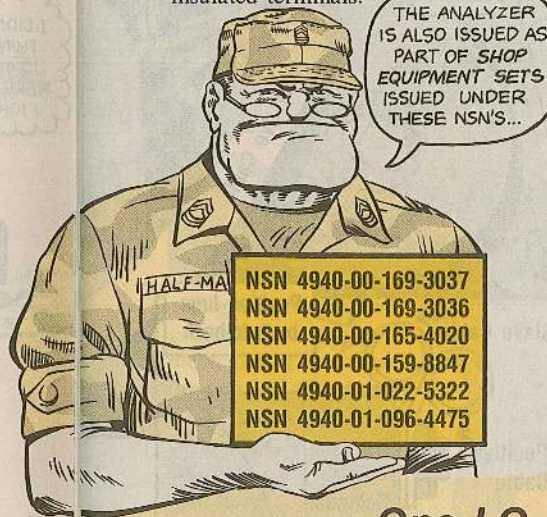
**Commander
Sacramento Army Depot
ATTN: SDSSA-T
Sacramento, CA 95813**

Use Condition Code L.

Once it's gone, tell the headshed the document number you shipped it under, the shipping date and the make and model number of the analyzer.

Send that info to:

**Commander
USA Armament, Munitions &
Chemical Command
ATTN: DRSMC-MMT-E (R)
Rock Island, IL 61299**



NSN 4940-00-169-3037
NSN 4940-00-169-3036
NSN 4940-00-165-4020
NSN 4940-00-159-8847
NSN 4940-01-022-5322
NSN 4940-01-096-4475

One LO Too Many

The M919 concrete-mobile mixer body ended up with two versions of LO 5-3895-372-12. One's dated Jun 83 and the other's dated Dec 83.

The headshed says to use the Dec 83 edition. They're rescinding the Jun 83 LO.

Generator Short Stop

Give your set's slave receptacle and generator cables some breathing room—or the sparks may fly.

There's not much room between the starter solenoid and the air shutter assembly. It's tight enough so that if the cables are routed too close, the terminal lugs can short out.

HERE'S A SAFE WAY TO POSITION THE TERMINALS.

- First, remove the negative cable from the battery. Then, disconnect the positive lead, slave cable and DC circuit cable from the solenoid stud.

- Reroute the slave cable between the starter and the engine housing. Position the battery cable lug so it's back-to-back with the slave cable lug. Make sure both lugs clear the air shutter assembly.

- Finally, reconnect the negative cable to the battery. You're now ready for spark-free operation.

Danger! Shorts ahead!

Air Shutter Assembly

Solenoid

Slave Cable

Positive Cable

Negative Cable

Starter

Position lugs back-to-back

Slave Cable

Positive Cable

Solenoid

Cover Up Shorts

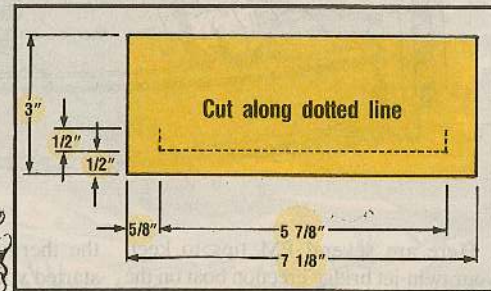
Fasten an old-style control box cover and you might short out your voltage regulator.

Set something heavy on the cover and you increase the chances for a short. Those older cases are an inch shallower than the new boxes with hinged covers. Add a wiring diagram plate to the inside and the cover can easily hit the terminal board when you fasten it.

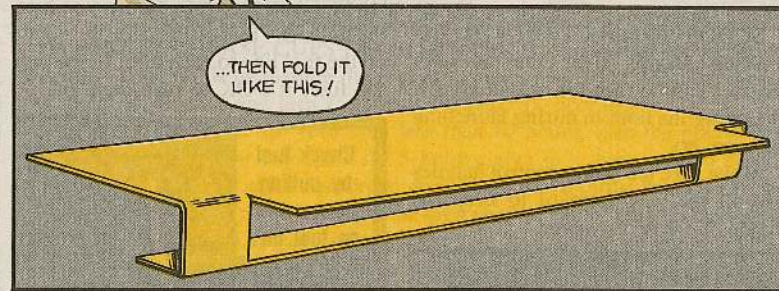
If you still have the removable, old-style covers, here's a solution to the shorting hazard:

Order a sheet of insulation paper, NSN 5970-00-519-9680.

CUT IT LIKE SO...



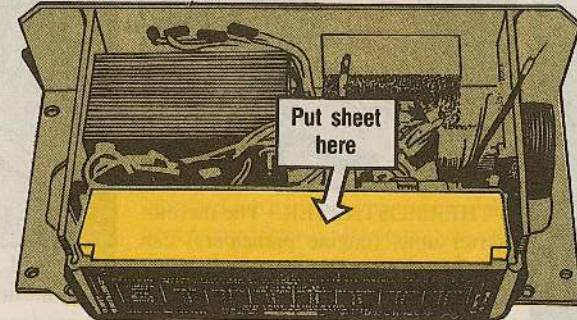
...THEN FOLD IT LIKE THIS!



Tag and remove the generator leads. Loosen the mounting screws on the terminal board and raise it slightly. Slip the bottom lip of the sheet between the terminal board and voltage regulator case.

Tighten the mounting screws and reconnect the generator leads.

Put sheet here



Head Off Troubled Waters

HOW LONG HAVE WE BEEN DRIFTING NOW?

LONGER THAN IT TAKES TO PULL **PM**!

LOOKS LIKE THEY NEED HELP!

YEAH! LET'S GIVE THEM SOME GATOR-AID!

Here are several PM tips to keep your twin-jet bridge erection boat on the go.

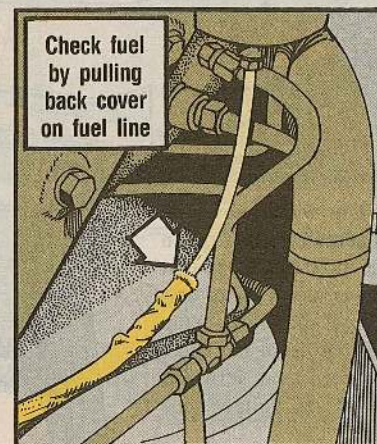
SCOOP PROTECTION—The reversing scoops over the hydrojet nozzles can be torn off or damaged if they drag the bottom during launching or recovery.

Make sure the scoop control handles are all the way forward to keep the scoops up out of danger.



THERMOSTARTER—The thermostarter units (engine preheaters) can burn out or melt the plastic seals if you run them without fuel. And you need

the thermostarters to get the engines started when the temperature is below 50°F. Check for fuel before you turn the units ON by pulling back the cover on the fuel line to each unit. If you can see fuel, it's OK to turn them on.



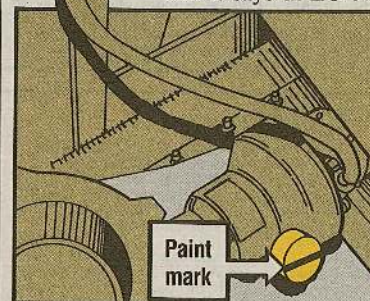
No fuel in the line? Get your mechanic to check it.

HYDROJET GREASE CUPS—Your daily PMCS says to lube the hydrojet bearings. You do this by turning the grease cup caps down one full turn. Don't turn them more than one turn for every 10 hours of operation.

If you run your boat less than 10 hours, turn the grease cup less. For example, for 5 hours, give it ½ turn, and so forth.

Extra grease is forced into the oil-lubed thrust bearing... and that bearing doesn't get the oil it needs. Paint a mark on the grease cup cap so you can tell when you have turned the cap one turn.

If the cap won't screw down, refill the grease cup with GAA, like it says in LO 5-1940-277-12.



TOWING—Never overload the towing capstan. The tow cable has a 2,000-lb load limit. If you have to move a heavy load—like a bridge bay—shove it! That's what the push knees are designed for.

LOW BRIDGE!—Never leave the mast and cab up when you transport the boat on the highway. If you do, you will damage the cab or mast and any overhead wires you pass under.

The more you read
in peace
The less you bleed
in war!

This is a selected list of recent pubs of interest to organizational maintenance personnel. This list was made from a computer printout provided by The Adjutant General.

Miscellaneous

FM 29-2 Jul Organizational maintenance operations
FM 44-3 Jun Chaparral/Vulcan employment
LO 5-2420-209-12 Apr Full tracked tractor, Allis-Chalmers HD16M
LO 5-2420-213-12 Jul Wheeled tractor, Caterpillar 830MB
LO 5-2420-219-12 Jul Wheeled tractor, MRS 100MC
LO 5-3805-240-12 Jul Ditching machine, Parson 624 VL
LO 5-3810-288-12 Jul Crane, Har-nischfeger M320T
LO 5-3810-289-12 Jul Crane, Bucyrus-Erie 22BM
LO 5-3810-294-12 Jul Crane, Har-nischfeger M320T2
LO 5-3810-295-12 Jul Crane, Har-nischfeger 320RT
LO 5-3820-235-12 Jul Pneumatic drill, Chicago Pneumatic G-900
LO 5-3895-275-12 Jul Paving machine, Barber-Greene SA-35
LO 5-3895-336-12 Jul Roller, General Steel Tank 1503
LO 5-4310-342-12 Jul Air compressor, 250 CFM, Ingersoll-Rand RMS-250
LO 10-3930-235-12 Jul Forklift, 4,000-lb, MHE-190, -190A, -190B, -191 and -220
LO 10-3930-620-12 Jul Forklift, 6,000-lb, Allis-Chalmers FE-60-EE, MHE-214
SC 7360-90-CL-NO2-HR Dec 83 Field range outfit
Technical Manuals
TM 5-3805-231-24P Jul Earth-moving scraper, 58SH-G
TM 5-3805-237-20P Jul Road grader, Model 440HA
TM 5-3805-250-20P Jul Scoop-

loader, MW24
C2, TM 5-3810-300-10 Jul 25-ton hydraulic crane, Grove TM S-300-5
C6, TM 5-3825-221-15 Jul Water distributor, Macleod Model W15A, W15A4112 and W15E901
TM 5-3895-224-24P May Aggregate spreader, Garwood M5-8FT
TM 5-3895-271-20P Jul Roller, Buffalo Springfield KX-25E(A66)
C5, TM 5-4310-221-15 Jul Air compressor, 125 CFM, Ingersoll-Rand Ger-125
TM 5-4310-250-20P Jul Air compressor, 250 CFM; Davey M250RPV, 6M250RPV, 9M250RPV
TM 5-5420-202-20P May M60A1 AVLB chassis
C4, TM 5-5420-209-12 Jul Ribbon bridge
C1, TM 5-5420-209-20P Jul Ribbon bridge
TM 9-1430-532-12-1 Jun HAWK, reprint with changes
TM 9-1430-533-12-3 Aug AN/MPQ-46 Improved HAWK, reprint with changes
TM 9-1430-600-20-1 May Patriot
TM 9-1450-486-20P Jun Lance
C1, TM 9-2330-356-12&P Apr Semitrailer, tank, M967, M967A1, M969, M969A1, M970 and M970A1
C4, TM 9-2350-253-20-1 Jun M60A3 TTS
TM 9-2350-255-20-2-2 May M1 tank
C1, TM 9-2350-255-20-2-3-1 Jun M1 tank
C1, TM 9-2350-255-20-2-3-3 Jun M1 tank
C4, TM 9-2350-256-20 Jul M88A1 recovery vehicle
C5, TM 9-2350-258-10 Apr M48A5 tank
C3, TM 10-3930-408-10 Jul Warehouse tractor, Clark CTA 40-1615160-RS, MHE-180

C1, TM 10-3930-408-20 Jul Warehouse tractor, Clark CTA-40-1615160-RS, MHE-180
TM 10-3930-609-20P July Forklift, 2,000-lb capacity, Baker FTD-020-EE-SS, MHE-204
C4, TM 10-3930-621-12 Jul Forklift, 4,000-lb, Allis-Chalmers F40-24PS, MHE-209 and F40-24PS100, MHE-224
TM 10-3930-624-20P Jun Forklift, 6,000-lb capacity, Allis-Chalmers F60-24PS-180, MHE-212
TM 10-3930-626-20P Jul Wheel-er tractor, United G40C, MHE-217
TM 10-7360-206-13 Jul Field kitchen, Model MKT-75, MKT-75A and MKT-82
TM 11-5820-520-10 May AN/GRC-106 radio sets
TM 11-5820-773-24P May AN/TRC-138 radio repeater set

AUDIO-VISUAL STUFF Available at battalion or post Learning Center

Films, TV Tapes

TF 3-6261 Decontamination Site Reconnaissance
TF 3-6262 Complete Equipment Decontamination
TF 3-6263 Preparing the Equipment Decontamination Station
TVT 6-121 Setup of the AN/TVQ-2 ground/vehicular laser locator designator
TVT 6-122 Operation of the AN/TVQ-2 G/VLLD

SMART Messages

Here's the latest SMART message:
SMART Msg #40—Provides info on a more effective way to record information when gaging petroleum storage tanks, DALO-PLZ-B 291749Z Jun 84.

paratus) User's Notice DRSMC-MAO-NC 311430Z May 84.
AMCCOM MA 84-17—M51 Shelter System, NSN 4240-00-854-4144, DRSMC-MAO-N 211900Z Jun 84.

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

Maintenance Advisories

AMCCOM MA 84-12—Head Harness, NSN 4240-00-690-8765, Used on M17-Series Protective Mask, DRSMC-MAO-NC 101710Z May 84.

AMCCOM MA 84-13—Hearing Protection Requirements: M3A3 Smoke Generator, NSN 1040-00-587-3618, DRSMC-MAO-NC 171510Z May 84.

AMCCOM MA 84-14—M3A3 Smoke Generator, NSN 1040-00-587-3618, DRSMC-MAO-NC 221515Z May 84.

AMCCOM MA 84-15—M9 Chemical Agent Detector Paper NSN 6685-01-049-8982, DRSMC-MAO-NC 251930Z May 84.

AMCCOM MA 84-16—Respirator (Self-Contained Breathing Ap-

Lessons
Learned . . .

Commo Killers



NOTHING KNOCKS OUT COMMUNICATIONS ANY QUICKER THAN CARELESSNESS, ABUSE OR NEGLECT!

THAT'S RIGHT, BONNIE, AND IT'S USUALLY THE LITTLE THINGS THAT DO IT...

...LIKE SOMETHING AN OPERATOR OR A REPAIRMAN DOES OR FORGETS TO DO...

...WHICH ADD UP TO BIG HEADACHES WITH RADIOS, RADARS, TELETYPEWRITERS OR ANTENNAS...

TELL 'EM
ABOUT IT,
BONNIE!

OK, MACON,
LET'S LOOK AT A
FEW RESULTS OF
THOSE LITTLE THINGS...

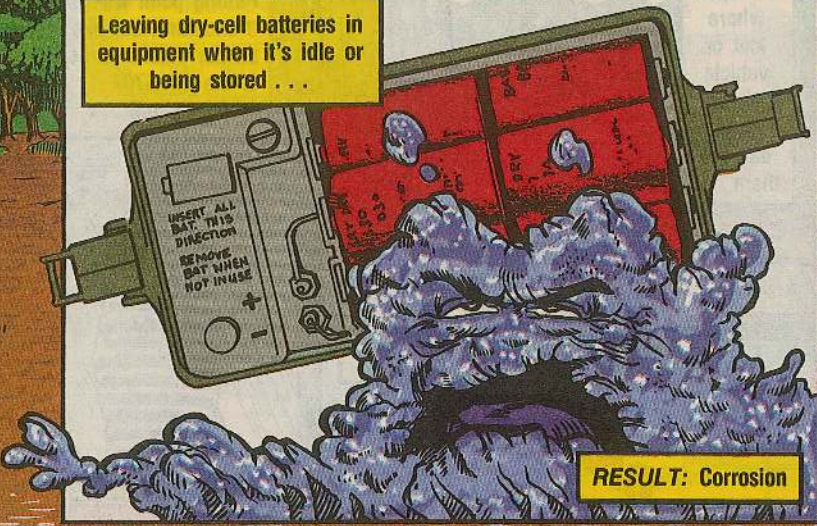
Carelessness

Hitting commo gear with water
from a high pressure hose ...



**RESULT: Shorts;
corrosion**

Leaving dry-cell batteries in
equipment when it's idle or
being stored ...



RESULT: Corrosion

Using memory instead of a TM
during maintenance, operation
and troubleshooting ...



**RESULT: Sloppy or
incomplete work**

Leaving cables in the open where foot or vehicle traffic can damage them . . .

... leaving whip antennas up where they can bounce off trees, buildings or power lines . . .

THWACK!

Replacing pluck-out panels while equipment is ON . . .

RESULT: Blown circuits!

Putting paint where it shouldn't be, like on the plastic portion of the MX-6707 matching unit . . .

RESULT: Cracked case and water damage

BESIDES CARELESSNESS, SOME FOLKS JUST PLAIN ABUSE THEIR EQUIPMENT DOIN' STUFF LIKE...

Slamming components into their mounts . . .

RESULT: Bent, busted connectors

Muscling cable connectors onto their receptacles . . .

RESULT: Twisted, broken pins!

Twisting knobs or roughly hitting switches . . .

RESULT: Broken controls

TAKE IT EASY ON KNOBS AND SWITCHES!

Abuse

Making out-of-echelon repairs ...



Starting a vehicle with the radio ON ...



Manhandling heavy gear or carrying a two-man load alone ...



Negligence

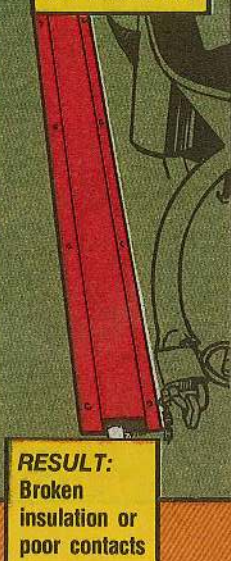
Letting dirt and corrosion build up on audio connectors ...

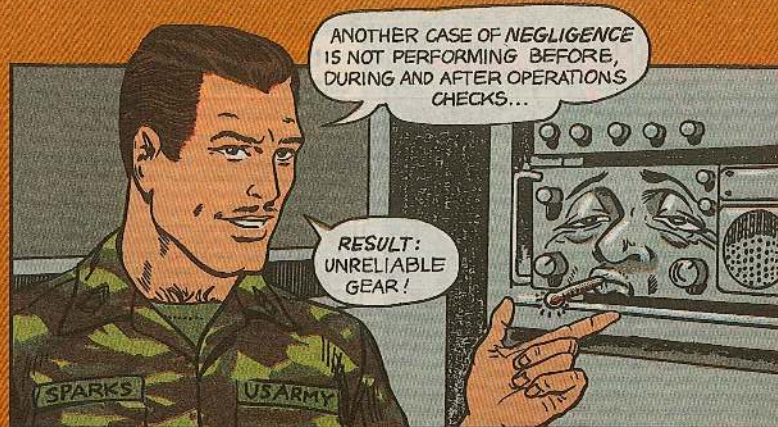


Not securing gear inside a commo shelter before moving ...



Forgetting to protect cables with O-rings, grommets and shields ...





Making It Crystal Clear

Getting the right crystals for your AN/PRT-4 transmitter and its AN/PRR-9 receiver is a breeze. You make up your own number.

First, you know the crystal number is CR-81/U. TM 11-5820-549-12 tells you that.

Now, tho, you have to choose the operating freq you'll need. Say one will be 55.10 MHz. C8 to the TM tells you that crystal freqs are 10.70 MHz below operating freqs. Subtracting, you end up with 44.40 MHz (55.10 - 10.70).

Now, add 4 zeros. The number you use then, is CR-81U44.400000MHz.

Go to the Master Cross Reference List (MCRL) Part 1 with that number. The NSN for that crystal is 5955-00-926-2688.

B03 REF NO	FSCM	NSN	I S C	R H V C	R A D C	S A D A	ITEM NAME
B03	REF NO	FSCM	NSN	I S C	R H V C	R A D C	ITEM NAME
CR-81/U44.100000M	81349	5955-00-926-2688					AL UNIT, QU
CR-81/U44.200000M	81349	5955-00-926-2688					AL UNIT, QU
CR-81/U44.300000M	81349	5955-00-926-2688					AL UNIT, QU
CR-81/U44.400000M	81349	5955-00-926-2688	2	2	2		CRYSTAL UNIT, QU

CR-81/U44.400000M 81349 5955-00-926-2688

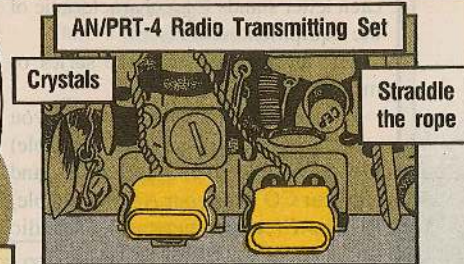
2 2 2

CRYSTAL UNIT, QU



or call AUTOVON 986-5748/5749.

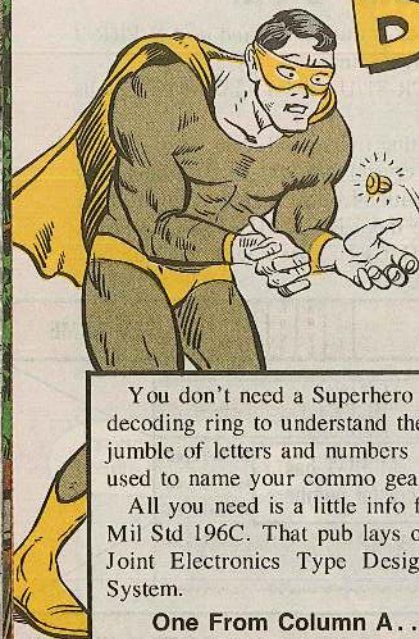
Be sure you install the crystals so they straddle the cord. That'll make removal easier.



When aligning the sets after a freq change, use only the alinement tool in the ID-1189 channel alinement indicator. Screwdrivers in the innards of a radio can cause all kinds of problems.

Same goes for the antenna loading coil and capacitors. Use only the proper alinement tool.

Breaking the Commo Code



KEEP YOUR RING, SUPERHUNK, EVERYTHING WE NEED IS RIGHT IN THIS PUB!

You don't need a Superhero decoding ring to understand the jumble of letters and numbers used to name your commo gear.

All you need is a little info from Mil Std 196C. That pub lays out the Joint Electronics Type Designation System.

One From Column A...

After the AN (Army-Navy) prefix, each letter stands for a characteristic of the equipment.

The number refers to the series or model of equipment.

Putting it all together, it means you spot the enemy with an AN/P(portable) P(radar)S(detecting)-5 radar set, and tell your CO over your AN/P(portable) R(radio)C(communications)-77 radio set.

YOU'VE ALSO GOT SOME GEAR WITH 1-AND 2-LETTER DESIGNATIONS, WHICH DO NOT USE THE AN INDICATOR...

...HERE'S A LIST OF MIL STD 196C'S CODE BREAKERS!

First Letter (Installation)

A-Piloted aircraft
B-Underwater mobile, submarine
D-Pilotless carrier
F-Fixed ground
G-General ground use
K-Amphibious
M-Ground, mobile
P-Pilotable
S-Water
T-Ground, transportable
U-General utility
V-Ground, vehicular
W-Water surface and under water combination
Z-Piloted and pilotless airborne vehicle combination

Second Letter (Equipment)

A-Invisible light, heat radiation
C-Carrier
D-Radiac
G-Telegraph or Teletype
I-Interphone and public address
L-Countermeasures
M-Meteorological
N-Sound in air
P-Radar
R-Radio
S-Special types, magnetic, etc., or combinations of types
T-Telephone (w/ire)
V-Visual and visible light
X-Facsimile or TV
Y-Data processing

Third Letter (Purpose)

C-Communications
D-Direction finder reconnaissance and/or surveillance
G-Fire control, or searchlight directing
H-Recording and/or reproducing
K-Computing
M-Maintenance and/or test assemblies (including tools)
N-Navigational aids
Q-Special, or combination of purposes
R-Receiving, passive detecting
S-Detecting and/or range and hearing, search
T-Transmitting
X-Identification and recognition
Y-Surveillance and control

AB Supports, Antenna
AM Amplifiers
AS Antenna, simple and complex
BA Battery, primary type
BB Battery, secondary type
C Controls
CG Cable assemblies, RF
CP Computers
CU Couplers
CV Converters (electronic)
CW Radomes
CX Cable assemblies, non RF
CY Cases and cabinets
DA Load, dummy
DT Detecting heads
F Filter units
ID Indicator units, non-cathode-ray tube
IM Intensity measuring devices
KY Keying devices
LS Loudspeakers
M Microphones

MD Modulators, demodulators, discriminators
ME Meters
MK Miscellaneous kits
MT Mountings
MX Miscellaneous
PL Plug-in units
PP Power supplies
R Receivers
RL Reeling machines
RT Receiver and Transmitter
S Shelter
SB Switchboards
SG Generator, signal
T Transmitters
TA Telephone apparatus
TD Timing devices
TH Telegraph apparatus
TS Test units
TT Teletypewriter and facsimile apparatus
ZM Impedance measuring devices

AN/PRC-77 Radio...

HEY, WE'RE
MOVIN' OUT!

Packin' PM

RIGHT
BEHIND YOU...
JUST ONE
FINAL CHECK!

While you get your gear ready for the field, make sure you're not taking any dead weight.

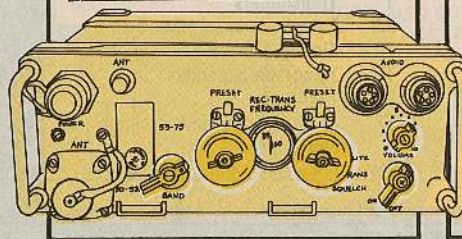
A radio set that won't transmit a message farther than you could yell it, is just that—dead weight.

You make sure the radio carries its own weight by doing PM before, during and after you hit the road.

Before

Before you leave home base, eyeball all moving parts. Make sure switches and knobs will switch and turn.

Switches and knobs
good to go?



Shorting cap
in place?



When audio contacts are getting that glazed look, brighten them up by rubbing them with a rubber pencil eraser. That helps guarantee good commo contact.

Be sure your set is weatherproof by making sure all connector covers are on hand and in place.

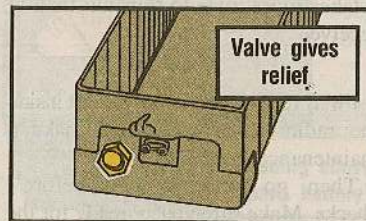
That includes the power shorting cap, NSN 5935-00-973-1859. Without it, your radio will not work on battery power.

Eyeball gaskets. First, make sure you have them: front panel, battery box and battery connector plug. Org maintenance can replace a battery connector gasket, NSN 5330-00-109-6450. The others are support.

If they're on the job, be sure they're not cracked, broken or too compressed to do their moisture-fighting job.

The battery box should have a pressure relief valve. If your set hasn't been modified, support does the work. NSN 5820-00-110-0714 brings 5 kits.

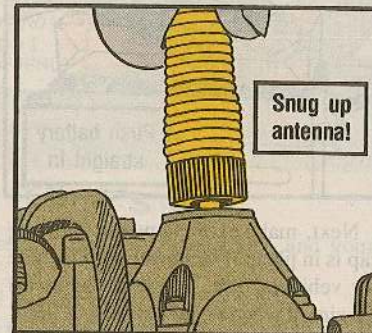
Valve gives
relief!



When you start getting the new BA-5598 lithium battery, NSN 6135-01-034-2239, remember that it needs special handling, tho. You save it for turn-in thru channels to PDO, just like you do for the BA-4386 magnesium batteries. Both create safety and environmental problems if thrown away, mutilated or burned.

Be sure your antennas are in good shape. Screw one into its base. If it's not snug, try a sliver of rubber band between the threads. If that doesn't snug up the fit, get another antenna.

Snug up
antenna!



Screw the antenna all the way down to the mount. Leaving a gap makes it a snap to break off.

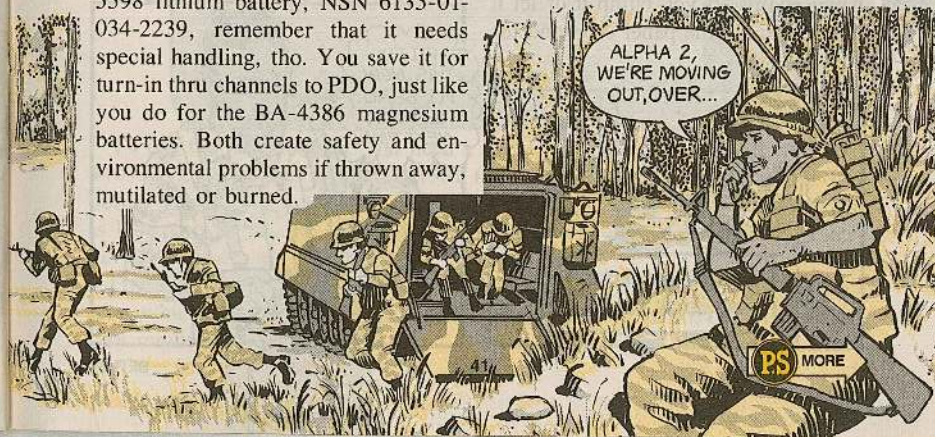
During

OK, you're in the field and ready to communicate. First thing to do, of course, is to put in a battery.

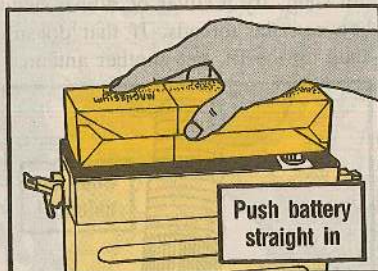
Do it carefully, or you'll break a radio connector or battery receptacle.

Set the radio on its front panel. Holding the battery parallel to the set, carefully mate the battery's receptacle

ALPHA 2,
WE'RE MOVING
OUT, OVER...



and the radio's pins. Now, keep the battery straight and push it onto the pins.



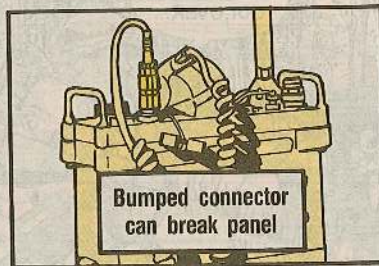
Next, make sure the power shorting cap is in place. The power plug is there for vehicular use. The cap completes the circuit when no power cable is used.

Likewise, when you put your receiver-transmitter on a vehicle, remove the battery. It can easily overheat and may even explode from vehicle power.

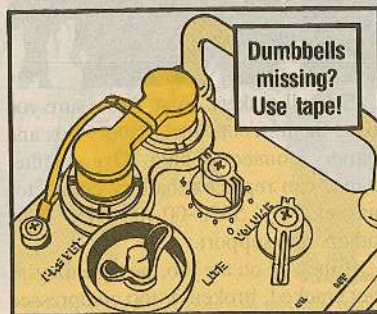
Once you've hooked up an accessory to the audio connectors, don't use that cable as a handle. You'll just break the cable or front panel.

Another no-no is picking up the radio by the antenna. That's another panel (or antenna) breaker.

Set the radio down carefully, too. The cable connector extends past the panel guards. If you bump it or let it hit something, the panel or connector suffers.



If you lose the dumbbell covers, NSN 5340-00-973-1732, that protect your audio pins, a short-term solution is a strip of tape.

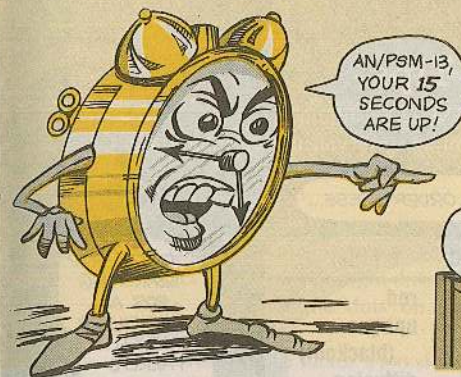


If you find transmissions fading or gone, even tho you still get good reception, try a new battery before sending the set off for maintenance. Remember, it takes more juice to transmit than to receive.

After

First, remove the battery. Left inside the radio it'll corrode and make a maintenance headache.

Then, go back over the "before" checks. Make sure you're ready for the next mission—no matter when it is.



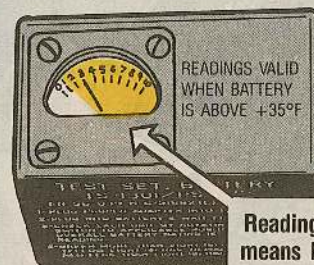
When Your Time's Up

Testing a BA-4386 battery is a matter of time. Take too much and your AN/PSM-13 test set can burn up.

It only takes about 15 seconds to tell if your battery's OK.

Keeping it under test for 30 seconds can overheat the TS-1301 test set. If you keep it loaded for a minute or more, the adapter gets hot enough to burn you.

To get a good reading on that BA-4386, be sure you've got the new U-410 adapter, NSN 5935-01-083-0688. It replaces the U-297 adapter, which was giving bum readings.



Reading above 1.8 means battery's OK

To use the new adapter, you need a decal. Get it with NSN 6625-01-160-4409. The decal goes on the TS-1301 face. Be sure the face is clean and dry before you do the work. The decal's dividing line for good or bad batteries is 1.8. Above that, the battery is OK for continued use. Below, you'd better get a new one.

One final warning: This adapter will not test the new BA-5598 lithium battery, which is replacing the BA-4386 in the AN/PRC-77 radio. In fact, the battery might explode.

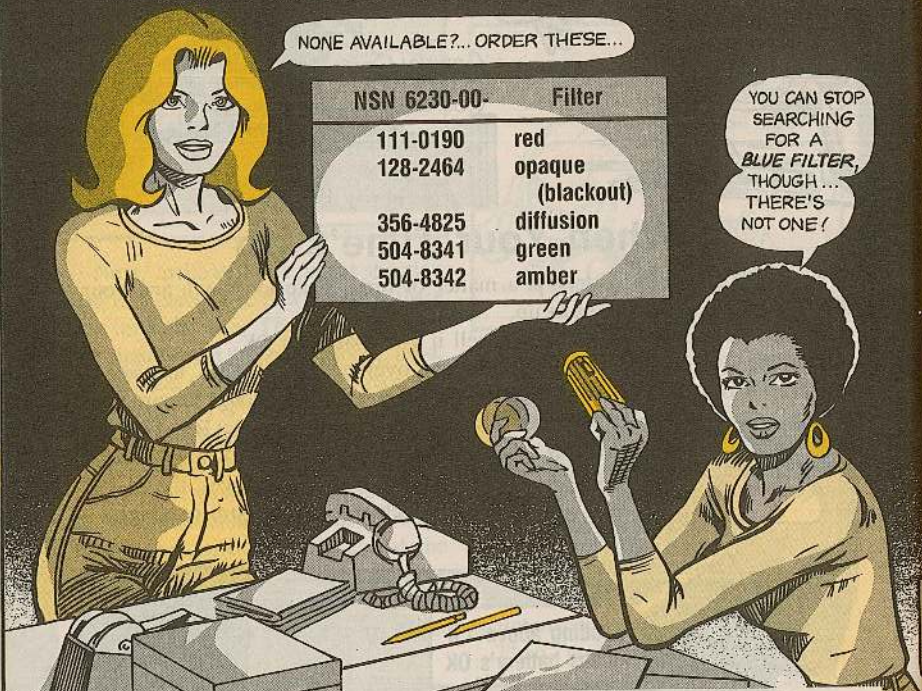
Filter Tips

Lost the filters for your MX991 or MX992 flashlight?
Your best bet is to recover filters from an unserviceable flashlight.

NONE AVAILABLE?... ORDER THESE...

NSN 6230-00-	Filter
111-0190	red
128-2464	opaque (blackout)
356-4825	diffusion
504-8341	green
504-8342	amber

YOU CAN STOP
SEARCHING
FOR A
BLUE FILTER,
THOUGH...
THERE'S
NOT ONE!



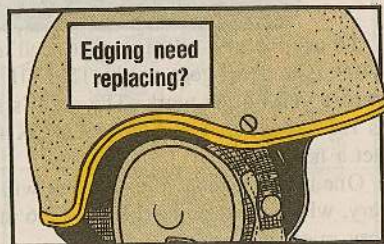
These filters also fit the MX212 right-angle, explosion-proof flashlights.
The bulb you need for your MX991 is NSN 6240-00-155-7935. The other flashlights use NSN 6240-00-155-8675.

CVC Lost Its Edge?

Don't chuck that DH-132 helmet shell just because it's lost its rubber edging. Repair it.

NSN 9390-00-710-4355 brings a 36-in strip of edging. A quart of adhesive is NSN 8040-00-165-8614.

This repair word will be in a revision to TM 10-8400-201-23. Chap 5 covers the CVC helmet.



TT-4, -76, -98...

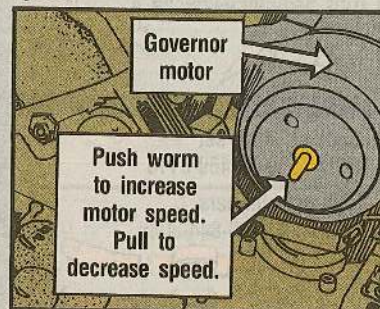
Adjusted to a T(T)?

How do you get out the good word when all your teletypewriters give is garbledygook?

It's easy as 1, 2, 3.

1. Make sure motor speed is on target. Tap your tuning fork—gently—on the heel of your hand. Sight through the slots at one of the dots on the governor.

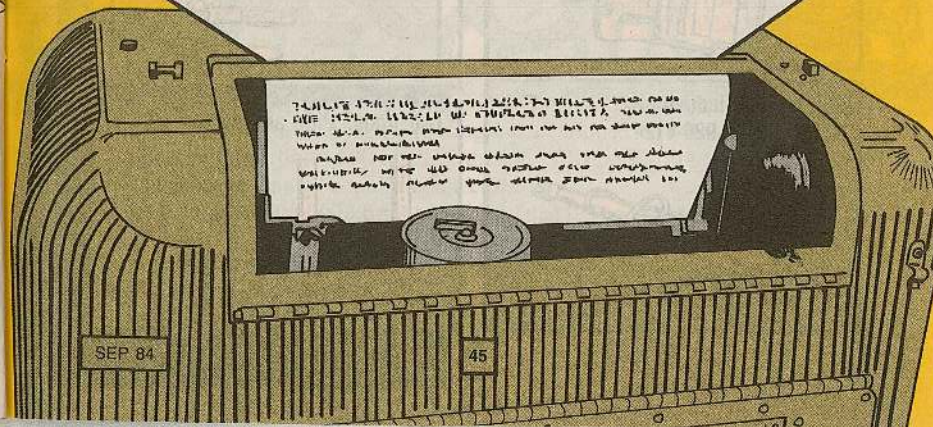
If it moves left, the motor's too slow. Push the adjustment worm. If the dot is going to the right, slow the motor down by pulling on the worm. When the dot stands still, quit. You're up to speed.



2. Eyeball the range adjustment. Make sure it's still where you set it. Chances are it won't go out on its own. Try to keep adjustments to a minimum. Too much fiddling can lead to failure. That leads to bad readings.

If it is out of whack, tho, go to your operator's pub for the proper adjustment.

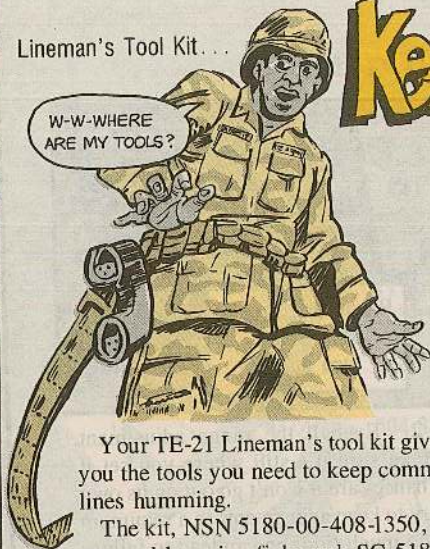
3. If it's still garbling, call in support. Any other adjustment—selector magnets, bias potentiometer or governor (except motor speed)—is hands off for operators.



Lineman's Tool Kit...

W-W-WHERE
ARE MY TOOLS?

Keep Track of

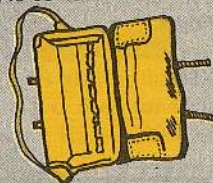


Your TE-21 Lineman's tool kit gives you the tools you need to keep commo lines humming.

The kit, NSN 5180-00-408-1350, is covered by microfiche pub SC 5180-90-CL-N48. Here's a rundown of the parts you can use when you go to the field.

Check your SC for optional tools your CO can authorize.

Bag, tool
NSN 5140-00-498-8721



Belt, safety, industrial
NSN 4240-00-926-4124



Climber's set, tree and pole
NSN 4240-00-273-9668

Pads, climber's strap
NSN 4240-00-591-1240



Gaff set, Tree-Pole climbers
NSN 4240-00-530-4289



Climber strap set
NSN 4240-00-469-8115

Straps, climbers
NSN 4240-00-844-8035

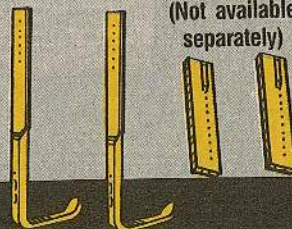


Straps, climbers
NSN 4240-00-844-8036



Leg irons, slide assemblies

(Not available
separately)



Your Tools

HOW LONG
ARE WE
GOING TO
HIDE OUT?

Wrench, lineman's
NSN 5120-00-277-4248



Screwdriver, flat tip
NSN 5120-00-237-6985



Strap, safety, industrial
NSN 4240-00-752-9715



Gloves, leather
NSN 8415-00-274-2433



Hammer, hand
NSN 5120-00-900-6118



Pliers, lineman's
NSN 5120-00-248-9420

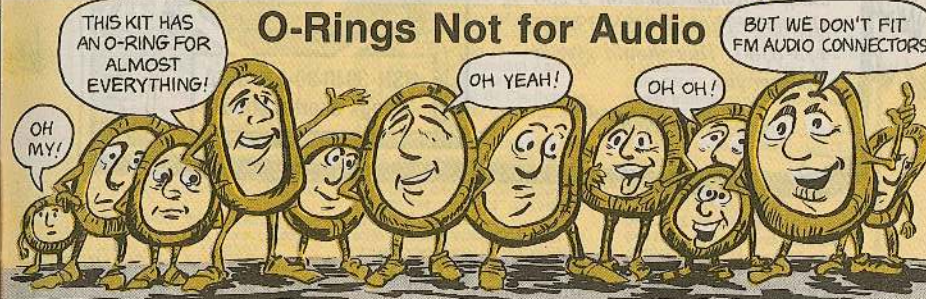


UNTIL HE
GETS A NEW
BELT!



O-Rings Not for Audio

BUT WE DON'T FIT
FM AUDIO CONNECTORS!



A word of caution about the O-ring kit mentioned on Page 43 of PS 374. You get a selection of 30 sizes in the kit, NSN 5330-00-966-8657, but not a single one fits an FM audio connector.

NSN 5330-00-905-6032 brings an O-ring that fits your H-250, H-189 or M-80 accessory.

The kit can be useful, tho. Its 300 rings come in sizes from 1/8-in to 1 3/4-in inner diameter. The kit also comes with a sizing gage to help determine which one you need.

So Long, Long Slings

Dear Macon,

We use the S-318 shelter slings you listed on Page 50 of PS 369. But, no matter what we try, they always seem too long.

Are we doing something wrong?

SP4 J.W.B.

HMMM...
TOO LONG
FOR THE
JOB!

Dear Specialist J.W.B.,

Probably not. Others have complained about the long S-318 slings, too.

So, the headshed has decided to OK substituting the shorter sling assembly used on S-250 shelters. They're NSN 3940-00-115-6380. This should give a snugger fit.

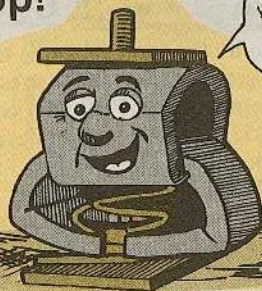
Macon

NSN 3940-00-115-6380
Brings shorter slings

Mount Up!

Saddled with broken or missing teletypewriter shock mounts in your AN/VSC-3 radio teletypewriter set?

You can lasso the TT-76 and -98 mounts you need with NSN 5815-01-091-1452.



WE'LL KEEP
YOU OUT OF
SHOCKING
SITUATIONS!

Pass the Word!

The only way to get the head hangar on the problem-solving trail of a faulty part is to let 'em know about it—with an Equipment Improvement Recommendation (EIR).

You want to fill out the SF 368 Quality Deficiency Report completely, as explained in Para 10-28 of TM 38-750 for a Category II EIR.

The info you put in Block 19 is very important. An "X" in the Unknown block—if that's the case—will clue the engineer types to start tracking the part so they can come up with a solution to the problem.

Block 21 is equally important. Although the tech manual says you should hold an exhibit for 25 days, remember—that is a minimum. Getting the disposition word for the part could take longer. A good ball park figure to hold the part is 60-120 days.

Go "all out" when filling out the form. There is plenty of room in Block 22 to spell out the details.

AVIATION MESSAGES

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

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

U-21-84-02 SOF Emergency 1-time inspection of U-21/RU-21A/D/C/G/H/J with specific T74-CP-700 engines. 042300Z May 84.
UH-1-84-05/AH-1-84-01 SOF Maintenance Notice, AH-1/UH-1 operator's and crewmember's checklist manuals on low-G flight and mast bumping. 142300Z May 84.

AH-1-84-02 SOF Maintenance Mandatory, Main rotor blade on certain AH-1S. 171530Z.

GEN-84-02 SOF Maintenance Mandatory ALQ-144 JR jammer on certain AH-1S (MC), AH-1T, UH-1N and UH-60A's. 071415Z May 84.

UH-60A-84-07 SOF Maintenance Mandatory, UH-60A engine output shaft. 101600Z May 84.

UH-60A-84-08 SOF Maintenance Mandatory, UH-60A 1-time inspection Aeroquip cargo hook pressure cartridge assembly. 292000Z May 84.

UH-60A-84-09 SOF Maintenance

Mandatory, UH-60A engine output shaft. 182130Z May 84.

CH-47-84-08 SOF Maintenance Mandatory, RCS CSGD-1860 revised inspection of CH-47A/B/C/D engine transmission warning system. 301530Z May 84.

MIM-T53-84-MEM-04 Clarification to T53-84-MEM-02. 191530Z Mar 84.

MIM-AH-1-84-MEM-05 UH-1 and AH-1 engine and transmission oil life extension. 072000Z Mar 84.

MIM-UH-1-84-MEM-03 Inspection of UH-1H support assembly. 022000Z Mar 84.

MIM-UH-1H-84-MEM-04 Use of non-standard/locally manufactured heavy duty skid shoes on UH-1. 051530Z Mar 84.

MIM-UH-1-84-MEM-06 UH-1 stabilizer bar support assembly. 191500Z Mar 84.

MIM-UH-1-84-MEM-07 UH-1 and AH-1 engine and transmission oil life extension. 072000Z Mar 84.

MIM-T700-84-MEM-01 UH-60A, T700-GE-700 engine revised shutdown procedures; revised ground idle speed, vortex spoiler data recording procedures; and data recording for engine incorporating

pressurizing and overspeed units. 271500Z Mar 84.

MIM-OH-58-84-MEM-02 Operation of OH-58C with defective transmission oil pressure transducer. 022015Z Mar 84.

MIM-CH-47-84-MEM-07 CH-47D power transfer unit solenoid valve 301930Z Apr 84.

MIM-U21-84-MEM-02 U-21/U-8 flap track roller washers 242100Z Apr 84.

MIM-T53-84-MEM-05 Clarification of AVSCOM message 051115Z Jan 84. 111830Z May 84.

MIM-T53-84-MEM-06 T53-L-703, 900-hr engine hot end inspection. 111900Z May 84.

MIM-T53-84-MEM-07 Air filter assemblies on UH-1, UH-1H, UH-1M, EH-1H, EH-1X and AH-1G/TH-1G. 181530Z May 84.

MIM-AH-1-84-MEM-04 Wire strike problem for AH-1S Prod, ECAS and MC 171540Z May 84.

MIM-GEN-84-MEM-01 Army-managed cartridge-actuated devices/propellant actuated devices 291930Z May 84.

MIM-OH-58-84-MEM-03 OH-58 crosstube fitting assembly. 221615Z May 84.

THESE
FORMS
DESERVE
YOUR
ATTENTION!



Take a Closer Look

Ever send an aircraft component to support for a fix—and get it back with nothing done or the wrong thing repaired?

The part has to go back for more maintenance. That means extra downtime for your bird and more of Uncle Sam's dollars gone.

Don't be so quick to think mean thoughts about the AVIM folks. Could be the problem lies in your own backyard.

Dig out your copy of DA Form 2407, Maintenance Request. Eyeball the data in Section I. Did you give the support mechs all the info they needed?

The unnumbered blocks and Blocks 1 and 1a ask for general information. But the others deal with the part and its problems.

Make sure to list the item's serial number in Block 2. That number helps keep the component and its paperwork together. If the serial number's missing, a mixup can happen in the Direct Support shop—and the piece can get the wrong repair.

Get the number from the component's data plate. The plate can be a separate piece attached to, say, a CH-47 brake assembly. Or it can be permanently marked on the item—like on the RU-21 brake.

Record the number on other paperwork, too—for example, DD Form 1574, Serviceable Tag, Materiel.

MAINTENANCE REQUEST				PAGE NO.	NO. OF PAGES	REQUIREMENT CONTROL SYMBOL
For use of this form, see TM 38-750; the proponent agency (if DCSLOG)				1	1	CSGLD-1047(R1)
SECTION I - EQUIPMENT DATA						
CONTROL NUMBER K07754	WORK ORDER NUMBER 9201-004	WESDC	ORG PD 04	PD AUTHENTICATION David R. Cannon		
☒ WORK REQUEST ☐ WARRANTY CLAIM	1a. ORGANIZATION 42nd Avn. Co.	2. LOCATION Ft. Rock, MS	3. UNIT IDENT CODE ABCDEF			
4. SERIAL NO. 12-34567	5. NOUN NOMENCLATURE HELICOPTER	6. LINE NO. UH-1H	7. NATIONAL STOCK NUMBER 1820-00-087-7637			
8. MAINTENANCE ACTIVITY 50th Trans. Co.	9. LEVEL F	10. UTILIZATION CODE ON	11. ERC ON	12. HOURS 1250.1	13. MILES	14. ROUNDS
15. FIRST INDICATION OF TROUBLE (Select one - use For X)						
☐ Scheduled Maintenance ☐ Test ☐ Storage ☐ Flight ☐ Handling ☐ Normal Op ☐ Inspection ☒ Other						
16. DESCRIBE DEFICIENCIES OR SYMPTOMS ON THE BASIS OF COMPLETE CHECKOUT AND DIAGNOSTIC PROCEDURE IN EQUIPMENT TM (Do not precede by repaired)						
Right engine deck punctured						
17. REMARKS Historical forms provided						
PREPARATION INSTRUCTIONS (Prior to using this form, read TM 38-750 for detailed preparation instructions)						
(1) Place a "J" or an "X" in the box for the type action required. (2) Enter the WESDC if the item is Materiel Condition Status Reportable. (3) Enter the priority designator as determined from the urgency of need and force activity designator. (4) The Unit Commander, Chief of TDA. (5) Block 7. Enter the name of the support activity. (6) Block 7a. Enter the symbol of the maintenance category (O, F, H, D or L). (7) Block 8. Enter the utilization code. (8) Block 9. Enter the word "yes" if the item is Materiel Condition Status Reportable.						

Block 3, Noun Nomenclature, and Blocks 7 and 7a won't present any problems.

Leave Block 4 blank unless the aircraft the part comes from is in the Sample Data Collection program. If Block 3 names components, survival equipment, precision measurement equipment or subsystems of SDC aircraft, Block 4 gets the bird's MDS, or model number.

Double-check the digits in Blocks 5, 6 and 10 and the letters in Block 8, Utilization Code. You can find the proper code in Table A-7 of TM 38-750. Support mechs need all those figures to do the right job the first time around.

Aviation types don't have to bother about Blocks 9, 9a, 9b, 11, 12, or 13.

Blocks 14, 15, and 16 tell the mechanic about the problem itself. So take a close look before marking in the Failure Detected During and First Indication of Trouble blocks.

In Block 16, briefly and clearly describe the fault or the symptoms that need fixing. The mechanic has to find out what's wrong. He'll know what to do about it. So if a brake cylinder was leaking fluid, say so. Don't write "Replace seals" or "Fix cylinder."

Keep an eagle eye on the info and you'll get your bird back on line quick.

For "MO" Source Codes...

Check Manufactured-Item Appendix

Ever find yourself blowing your cool when the TM's won't cough up an NSN you need?

If you spot "MO" as the first two characters of the item's Source, Maintenance and Recoverability (SMR) code, you can probably find what you need in the manual's illustrated list of manufactured items. That's Appendix D in most aircraft TM's. But others carry it as Appendix E, F or whatever. (Some older manuals may not have this list.)

The list spells out—and shows—what you need to locally manufacture those parts.

SECTION 11					(6) DESCRIPTION	(7) QTY INC IN UN
(1) ILLUSTRATION	(2) ITEM NO	(3) PART CODE	(4) NATIONAL STOCK NUMBER	(5) PART NUMBER	DESCRIPTION	QTY INC IN UN
37	28	PAD22	1680-00-101-3591	17EC5-1	BRACKET, LOWER, ARMOR U/G PN 178030-1	EA
37	29A	MOOZZ	1680-00-915-0201	17EC36-1	PLATE, ARMOR SEAT U/G PN 178060-1	EA
37	29C	MOOZZ	1680-00-915-0201	17EC36-2	CHANNEL	EA
37	30A	PAD22	1680-00-915-0201	17EC5-2	PLATE, ARMOR SEAT U/G PN 178060-1	EA
37	30A	PAD22	1680-00-915-0201	17EC5-3	CHANNEL	EA
37	30A	PAD22	1680-00-915-0201	17EC5-4	CHANNEL	EA

Put that Pump in Pronto!

OOOHMP!
I CAN'T SEE
WHAT I'M
DOING!

COULD YOU
MOVE OVER?

LOOK'S LIKE
THEY NEED HELP
FROM A CERTAIN
MR. T!

THERE'S
NO ROOM
UNDER HERE!

Putting a fuel boost pump into place on an OH-58 or UH-1 can stretch your patience to the limit and leave you shaking like a leaf.

You work on your back under the bird; the workspace is limited; and it's hard to see what you're doing.

If a buddy helps you, things get even more crowded.

A slip-up can cause anything from bruised knuckles to a busted pump.

Your big problem is getting the 3-in bolt thru the sump plate and into the fitting. Bolt, plate and fitting are all moving, usually in different directions.

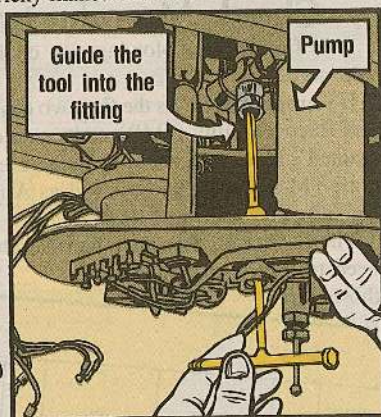
TM 55-1520-210-23-2, Para 10-99, says to put a $\frac{1}{4}$ -in $\times$ 5-in guide bolt thru the sump plate into the fitting. It's still a tricky maneuver. TM 55-1520-228-23-2 says even less.

There's a better way.

Latch onto three $\frac{1}{4}$ -in $\times$ $3\frac{1}{2}$ -in bolts, NSN 5306-00-281-8945. Cut the heads off 2 of them. Have your support people weld those 2 together where the heads were, then weld the third bolt to one end, making a "T." You now have a 7-in tool to get that pump in place.

Use three
 $\frac{1}{4}$ -in $\times$ $3\frac{1}{2}$ -in bolts,
NSN 5306-00-281-8945

Weld here



Put the gasket onto the pump.

Then guide the threaded end of the tool thru the sump plate and screw it into the fitting.

Secure the pump to the plate with 12 bolts and washers.

Pull the fitting thru the sump plate hole.

Gently unscrew the tool so the fitting stays put.

Install, from the top down, packing, cap, packing, washer and bolt.

Huey

Lockwire the cap to the bolt. Then connect the electrical wiring or air pump hose. Torque all bolts to 65-75 lb-in. The job's done.

Kiowa

Align the pump and sump plate and put in 12 bolts and washers. Torque them to 65-75 lb-in. Then install the sump retainer and connect the wire.

UH-1 Fuel Cells...

Come to a Fitting Conclusion

Auxiliary fuel cells help a Huey go farther to get the job done.

When installing the cells, you have to get everything together the right way. If you get pieces together wrong, the whole assembly is harder to put together, fuel flow is restricted and there is more stress on the lines.

Seems like Murphy has a special fondness for one particular piece. It's the adapter, NSN 4730-01-064-2487, Item 10 in Fig 343, TM 55-1520-210-23P-2. Better take a look at your bird's tanks right now.

The adapter goes with the right-hand fuel tank, between the tank and elbow, NSN 4730-01-070-8534.

But some mechs—with Murphy's help—put the fitting between the check valve, NSN 4820-00-758-9299, and the elbow, NSN 4730-00-277-2459. That restricts the fuel flow.

Auxiliary Fuel System

Mistakenly
installed
here!!

Elbow

Put adapter
here

Fuel tank

So check the lines on your bird's auxiliary fuel tanks. If that fitting—or any other part—is out of place, fix it now!

CH-47 Chinook...

WAIT, THERE'S A MUCH EASIER WAY TO CHECK THAT RESISTOR!

GOOD, I THINK MY ARMS ARE STUCK IN THERE!

Beep-Beep! Check That Resistor

Checking minimum beep resistance on the CH-47A, B and C's engine condition control resistors can eat up a mechanic's time and patience to the max.

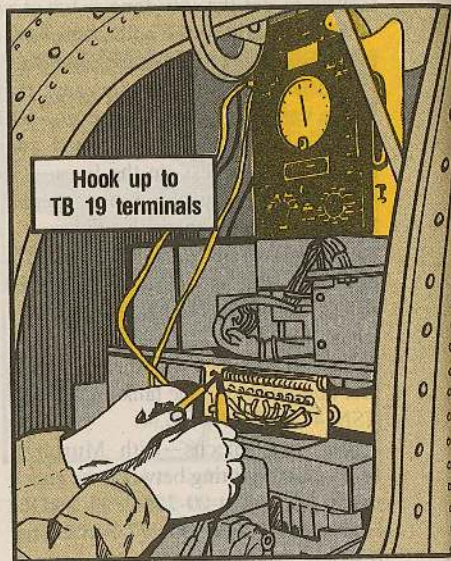
It's a hit-or-miss job testing and adjusting resistance. You have to reach behind the TB 19 terminal board to do the job. You can't see what you're doing, increasing the chances of connecting the multimeter to the wrong terminal.

There's an easier—and quicker—way to do the job.

Remove the cover of the TB 19 terminal board in the AC control pod. To check the No. 1 engine resistor, use an AN/USM-223 multimeter. Set it to RX1. Touch the probes to TB 19 terminals 2 and 1 instead of the resistor R202 pins 2 and 3. The meter should read 50 ohms for the CH-47A or 25 ohms for the B and C models. If not, adjust the resistor until it does.

For the No. 2 engine, touch the probes to TB 19 terminals 9 and 6 instead of R200 resistor pins 2 and 3. The meter should read 50 or 25 ohms (depending on the models) here, too.

When you get the resistors adjusted, replace the terminal board cover.



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Aircraft Instrument Systems...

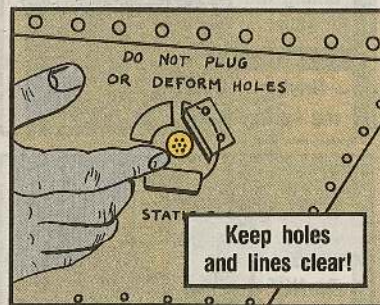
ONLY CLEAR PORTS CAN GIVE CLEAR READINGS!

Pitot Ports Giving You Static?

Pitot/static ports take up little space on an aircraft. But if the port holes are covered or the lines get clogged, they can cause big trouble—like a 200-ft error in the altimeter, a false airspeed reading or a bum vertical velocity readout.

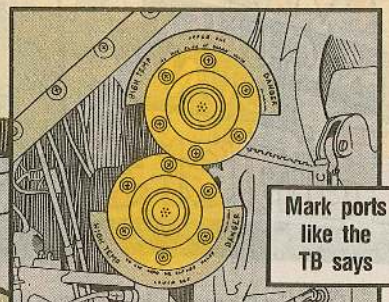
Think what would happen during a pinnacle approach under any of those handicaps!

So make sure to keep your bird's pitot/static ports clean and clear.



Plainly mark the ports, according to the poop in TB 746-93-2. That way, bird mechs won't paint over the holes.

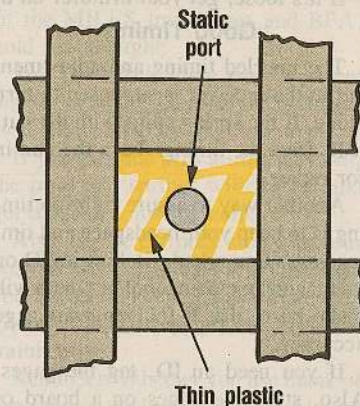
SEP 84



Clean the static tubes like it says in para 3-301a(3) of TM 55-1500-204-25/1. Then follow paras 3-301a(3) and (4) to test for leaks.

When washing your aircraft, keep water out of the static lines by covering the port holes. But don't stick pressure-sensitive tape directly on the ports. When you pull the tape off, the gummy stuff stays behind, blocking the holes and attracting dirt.

Instead, tape a piece of thin plastic



over the hole with drafting tape, NSN 7510-00-198-5831. Remember to take it off at the end of the wash job.

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M2 MACHINE GUN Pointers



Don't let the rugged look deceive you when you handle those heavy barrels of your M2 machine gun.

The barrels are tough, but if you don't pick them up and put them down easy-like, you'll bang up the threads or flash hider. Banged threads won't allow the barrel to be headspaced and timed to the receiver.

Hand the barrel to a buddy when you put it on or take it off a truck or track. If you haul it on a truck bed, put something under it to cushion the threads.

When you install a barrel, give it a right and left twist after you lock it into the receiver.

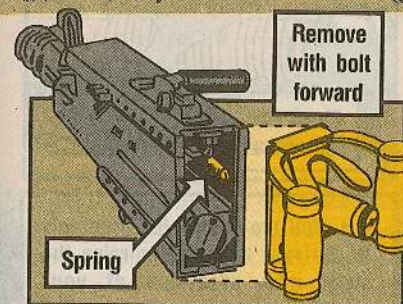
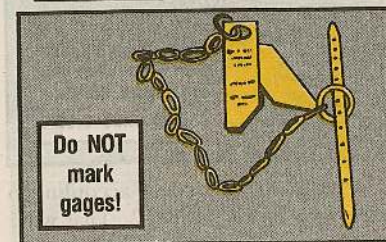
If it's loose, get your armorer on the horn. It could fly off when you fire it.

Good Timing

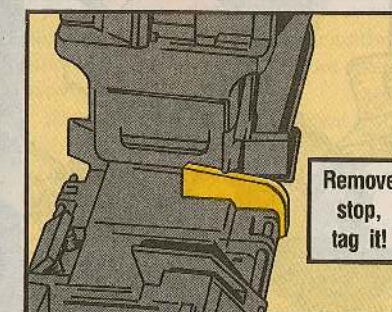
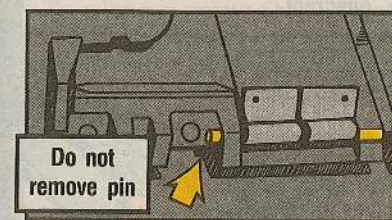
The knurled timing and adjustment nut in the receiver is supposed to turn alone. If the spring spins with the nut, it'll affect the timing. Turn the gun in for repair.

Another way to assure right-on timing is to keep your headspace and timing gages unmarked. Etching an ID on them with an etching tool or punch will make burrs that'll foul up your gage accuracy.

If you need an ID, tag the gages. Also, store the gages on a board or hanger so they won't get accidentally burred or scratched. Smooth's the word.



Stop Prop



Spring Ding

You've heard it before, and it's true: Do **not** remove the backplate unless the bolt is **forward**. When the bolt is back, the driving rod and spring are under a lot of tension. If you remove the backplate with the bolt back, the rod and spring can fly off and be damaged. So can you.

Before you remove the front cartridge stop of your M2 machine gun to fit the MILES transmitter and BFA, hold this thought:

Pull the belt-holding pawl pins out just far enough to release the cartridge stop. Then, slide the pins back in place.

If you pull the pins all the way out, the pawl and springs will fly out and get damaged, lost or both.

Also, tag the cartridge stop with your receiver's serial number and store it till you're thru with MILES (Multiple Integrated Laser Engagement System) training.

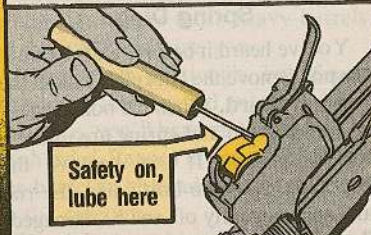
Reminder: Whether you use blank or live ammo, the bolt switch must be set for either right- or left-handed feed.

If it is not set right, bolt and cover components will be damaged.

The Little Things Count, Too!

Little things add up to working weapons when you maintain or trouble-shoot your M203 grenade launchers. Like so:

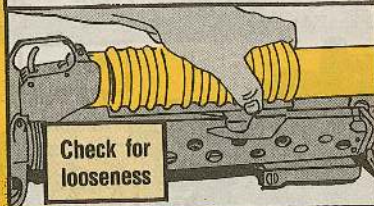
- Lube the safety when you clean and oil your weapon, but lube it with the safety in the **SAFE** position. That way, you get CLP to the moving area of the safety.



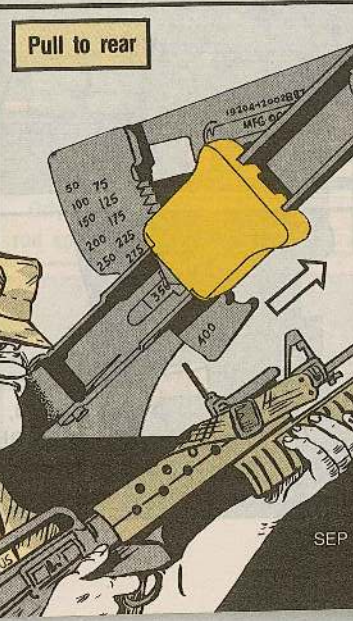
- Eyeball the breech insert. It should not be above the surface of the breech face. If it's above, it can lead to punctured primers. Have your armorer check it out.



- Barrel grips come loose. They also come off, which means you've got nothing but slippery steel to work with. When it loosens, tell your armorer so he can have DS repair it.



- Pull the slide latch assembly to the rear to lower or raise the sight arm assembly of your quadrant sight. Force can damage the slide latch or fire control quadrant.



A 3-Way Wedding

The 2 barrels and the bolt in your M60 machine gun play like a love triangle in the movies—except they all stay together in the end.

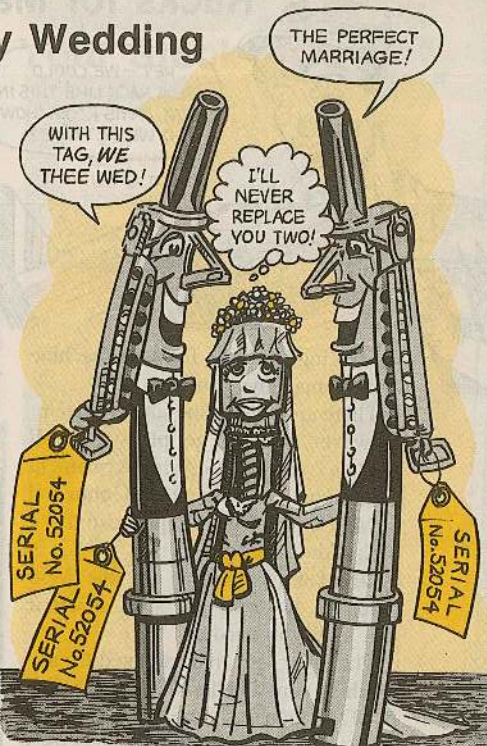
Which is to say, the barrels and the bolt should stay together for life, or until one or the other is no longer serviceable.

That's because they're matched up through headspacing. As long as you use a matched barrel and bolt, everything's cool. They know each other's chips and bangs, and they sorta wear out slowly—you could say they age gracefully.

But if you switch one gun's bolt with another's barrel, watch out. They quickly make a bunch of new damage to go along with the old chips and bangs. That makes for quicker wearout or stoppage.

So, when you remove a barrel or bolt for cleaning or whatever, tag it with the serial number of the gun it came from.

Just consider the tag as a wedding license.



Bayonet Lock Check

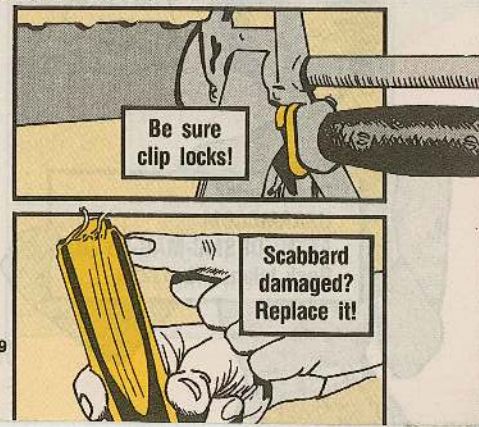
Before you head for the field or the training area, try the locking clip on your M7 bayonet (used with the M16A1 rifle and M203 launcher).

If the lock doesn't work, your bayonet won't stay on the mounting stud. Get a replacement from your armorer.

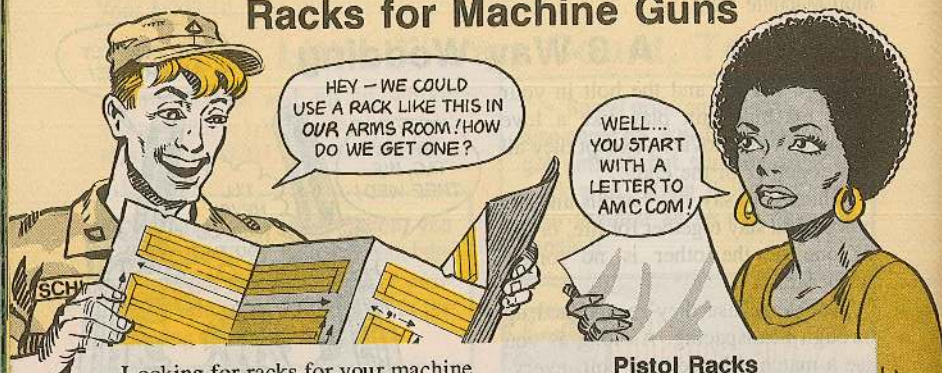
Bayonets need lubing to prevent rust. Lube with CLP (same stuff you use on your rifle and grenade launcher) when you return from the field.

If your M8-series scabbard won't hold your bayonet firmly, or if the scabbard's damaged so bayonet metal is exposed, turn it in for a replacement.

SEP 84



Racks for Machine Guns



Looking for racks for your machine and submachine guns?

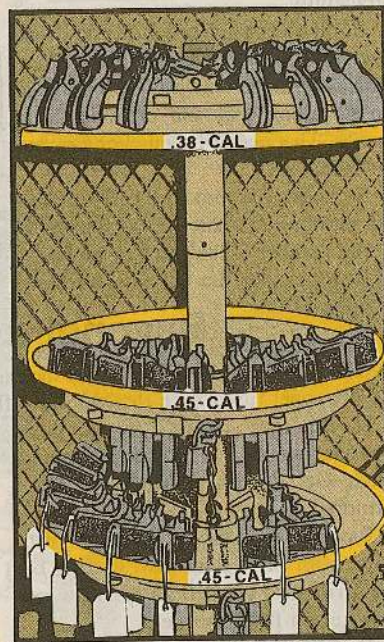
There are none in the supply system. However, you can get plans to fit all models from the US Army Armament Munitions and Chemical Command (AMCCOM). Your support can make racks for you locally.

One set of plans is for the M60 machine gun only, so spell it out if that's all you need.

The other set can be adapted to sub-machine guns and the M2, M85, M240 or M249 machine guns. Scale the rack to the size you need. Plans have NSN's for the material you need.

Pistol Racks

You can get a rack for the M1911A1 .45-cal pistol with NSN 1095-00-650-7453. CTA 50-909 is the authority.



You can also store the .38-cal revolver in the rack by turning the tray upside down.



M16A1 Rifle...

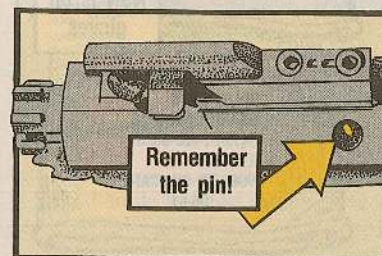
Shock and Your Stock

Bayonet and other training is murder on M16A1 rifle handguards and buttstocks. That's expected.

Armors can look for the unexpected. Rugged training also loosens the lower receiver extension.

Retaining Pin

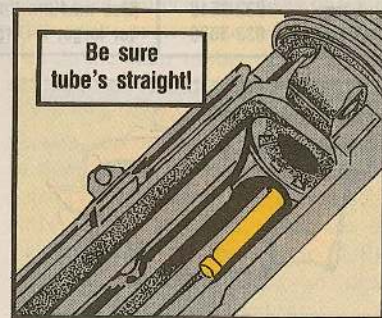
Whether you're on the range or in the arms room, remember to install the firing pin retaining pin. Lots of troops forget it. Without it, the rifle won't fire.



Carrier Key

Before you install the bolt, be sure the portion of the gas tube that extends into the receiver is straight.

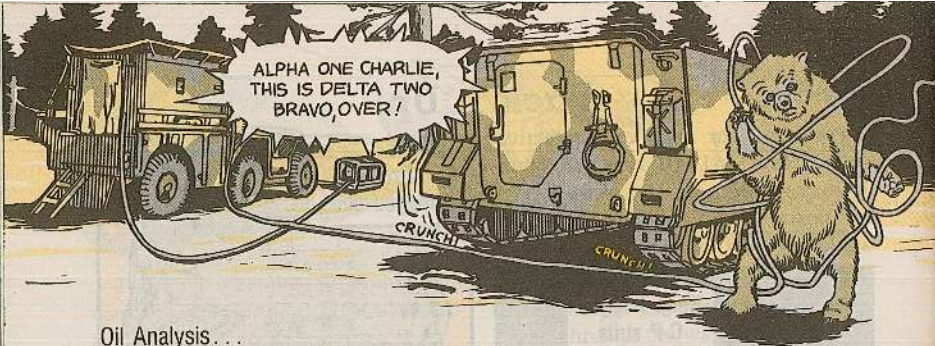
If the tube's bent and you try to jam the bolt's carrier key onto it, the key or the tube will be damaged.



M1911A1 Slide Slip

Let CLP set a few minutes in the contact points of your M1911A1 pistol slide group before you wipe the slide clean. Also, shake the CLP well before you apply it.

A short wait lets the CLP coat the contact groove in the slide. That allows the slide to glide freely when the weapon is charged or closed. The CLP coating saves a little wear on the slide and a lot of "tear" on the shooter.



Oil Analysis...

Tapes Available

Four video tape programs are now available for information and instruction on the Army Oil Analysis Program (AOAP).

- Aeronautical AOAP Sampling Procedures (TVT 46-125)—looks at supplies, tube and drain method of sampling, and the proper way to fill out DD Form 2026; gives instructions on how to respond to both normal and abnormal lab findings.
- Non-aeronautical AOAP Sampling Procedures (TVT 9-28)—covers supplies, use of the vampire pump and sampling valve, and how to complete DD Form 2026; gives instructions on how to respond to lab findings.
- A Tour of the AOAP Laboratory (TVT 9-29)—describes AOAP lab processes and shows sample analysis; highlights lab support of customer, and the AOAP Standard Data System.
- The AOAP Team (TVT 9-30)—discusses roles of key AOAP personnel, featuring the unit and installation monitor; highlights management responsibilities at the command level.

Copies of these videotapes are available from your local training and audiovisual support centers (TASC's).

Crush the Foil!

Crush the ampoules of the No. 2 Wipe of your M258A1 decon kit while they are in their foil packet. **Then**, tear open the foil and remove the mesh screen and pad. Let the screen fall away and wipe your skin with the pad. The art on Page 62 of PS 379 is wrong.

Joy Rock Drill Filter

NSN 2940-00-845-4960 gets you the hydraulic oil filter for your Joy model MS-5/450A-DR rock drill. It's not in TM 5-3820-241-20P.

Initial PLL

Get help setting up your unit's initial PLL. If your unit is new or you've got some equipment changes, get the supply folks at MRSA to help you put a PLL together.

Write to Commander, US Army DARCOM Materiel Readiness Support Activity, ATTN: DRXMD-S, Lexington, KY 40511, (AUTOVON 745-3343/4137, Commercial (606) 293-3343/4137). Para 8-5a of DA Pam 710-2-1 tells you how.



Loading Ramp Hydraulic Pump NSN

Use NSN 4320-01-064-5394 to get a new hydraulic ram pump for your Brooks & Perkins mobile loading ramp, NSN 3990-01-059-0104. The pump NSN is not listed in TM 10-3990-200-12&P.

CO₂ Extinguisher Horns

You can get a horn for your 15- or 20-lb CO₂ extinguishers made by General Fire Extinguisher Co with NSN 4210-00-760-5789.

2 Immersion Heaters Obsolete

Immersion heaters, NSN 4540-00-266-6835 and NSN 4540-00-453-9146, are obsolete. When they go bad, turn them in and order new heaters, NSN 4540-00-469-6593.

Give Us Your Word!

Your outfit put out a Logistics Bulletin, Supply & Maintenance Letter, or something similar? How about putting PS on distribution? We're always looking for PM problems and solutions.

We're also looking for the best unit level maintenance SOP in the Army. Proud of yours? Send us a copy.

Getting It Straight

Just a reminder—the TM PMCS Item Number column on your DA Form 2404 should be straight out of your TM. Some people have been using a sequential numbering system (i.e., 1, 2, 3 etc.), but that's wrong. The number in that column is the same as it appears in your TM's PMCS.

Record Equipment Exercises

Any time you exercise low-usage equipment, keep a record of the operation on a DD Form 1970. Your equipment pubs—or TM 740-90-1 for items in administrative storage—will tell you when to exercise the gear. DA Pam 738-750 tells how to fill out the DD 1970. Remember to put the word "Exercised" in the Remarks block.

★ U.S. GOVERNMENT PRINTING OFFICE: 1984—759-008/10

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