

Issue 325

PS

December
1979

THE
PREVENTIVE
MAINTENANCE
MONTHLY



HURRY--IT'S
ONLY SECONDS
'TIL LIFT-OFF!

GEE,
SANTA--

DIDN'T YOU
HEAR 'BOUT
PMCS FOR
TOY BAGS?

MURPHY
ANDERSON

Clean Your

Head Off Erosion...

M16A1 BORE

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.

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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

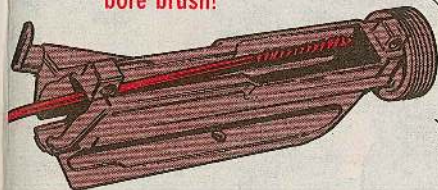
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A shiny bore on your M16A1 rifle is a thing of beauty.

But, "shiny" doesn't necessarily mean clean...and clean is where you want to be.

Chrome-plated bores, such as in most M16A1's, may shine pretty after a session with your bore and chamber brushes. But, if a patch comes out dirty and leaves a shiny bore, then the bore is dirty.

...get with the
bore brush!



What the bore needs is more work with the bore and chamber brushes until you get a patch that comes out clean.

When you've done a good cleaning job, inspect the bore and chamber for pitting. If you find any, show it to your armorer. It may need a serviceability check by direct support, through him.

If possible, a DS contact team or the DS shop should inspect all weapons annually for serviceability. Armorers make the initial contact.

Patch dirty?
Bore's dirty...



ZZZ-ZZZ



Dear Santa--
Please find
a rifleman
for me who
will keep my
bore clean.
M16A1

M203 How-To Tips



Firing Pin Pop

If the firing pin pops out when you open the breech of an M203 grenade launcher, read on.

HERE'S WHAT YOU DO...

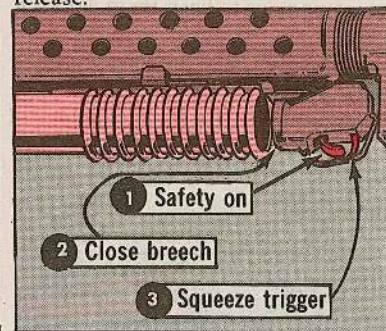
HO HO HO HO HO!

YEH, SARGE--SANTA SAID WE OBVIOUSLY NEEDED HELP WITH OUR M203's...

...SO HE ASSIGNED THESE ELVES TO OUR UNIT!

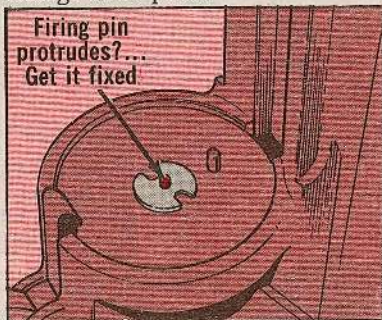
ARMORERS CAN TEST THE LAUNCHER LIKE THIS...

With the safety on, cock the launcher and close the breech. Squeeze the trigger. The firing pin should not release.



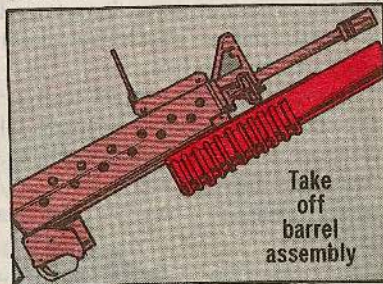
Never try to fire your M203. It may need repair at support level. Also, when the pin pops, the breech can't be closed...so don't try to force it. You'll damage other parts.

Firing pin protrudes?... Get it fixed



Turn it in to your armorer.

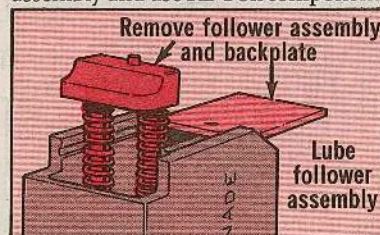
Armorers should separate the M16A1 upper and lower receivers and remove the launcher barrel assembly.



Take off barrel assembly

Also, remove the launcher back plate and follower assembly.

Clean and lube the follower assembly and use RBC on components



in the receiver housing. Use cleaning solvent in it, too, and then dry and lube springs, pivot points and other internal parts.

Put the barrel assembly back together and connect the rifle upper and lower receivers.

Put the safety off, squeeze the trigger...and the firing pin should release.

Now, squeeze and hold the trigger. Open the breech to cock the firing pin. Close the breech, release the trigger...and then squeeze it again.

The firing pin should release. If the pin remained cocked, you probably have sear problems. In which case, turn it in to your support.

The point is, a firing pin can pop because of defective sear and trigger hooks, sear and trigger notches, sear pin and pivot holes. Most likely, it's a worn sear hook or weak sear spring.

Best bet: Have support check it out!

No Wham-Bam



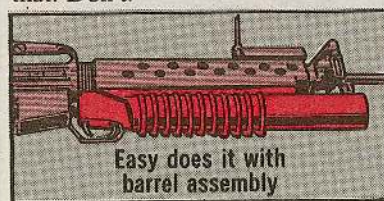
Some parts on your M203 grenade launcher can't take the strain of normal whamming and bamming. You've probably already found that out.

High on the list are the quadrant sight and the barrel assembly. So, here are some ways to keep them working longer:

- The top end of the quadrant sight teeth break most often. You can help prevent it by storing the sight with the range quadrant in the 300-400 meter position. That way, the teeth avoid snags, bangs and bumps while you carry the M203 or when it's in its rack.

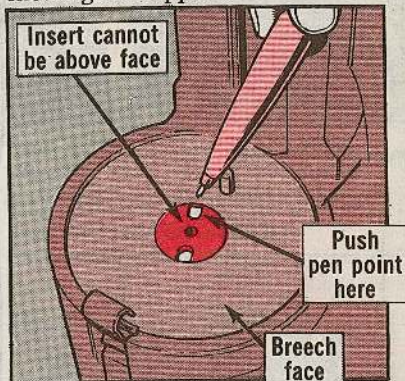


- Barrel assemblies are damaged from excessive sliding up and down, careless handling and uncushioned travel in trucks. One word of PM stops that: Don't.



The breech insert gets another kind of damage: It works loose when sealant's not applied right, and breech face threads are stripped during firing.

So, grenadiers should check inserts before firing. First, the insert should fit flush or just below the breech face. If you have a way to measure, it can be no more than .007 inch below the breech face. Run a finger over the insert and breech face. If the insert's above the breech face, the launcher should go to support.



Also, check for tightness by pushing on an insert slot, counter-clockwise, with a ball point pen or something similar. If you get no play, the insert's OK. Never borrow a combination gage/wrench to check tightness. You might just get it loose enough to work off later, or you may tighten it too much.

Check the Barrel Extension

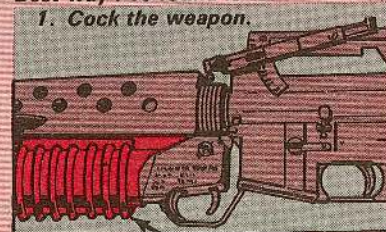


Dear Half-Mast,

I'm a small arms shop foreman, and unit armorers bring me their gripes. The latest is how inspectors check the barrel extension of M203 grenade launchers for wear. They hit the extension with a forward thrust to see if the barrel stays closed.

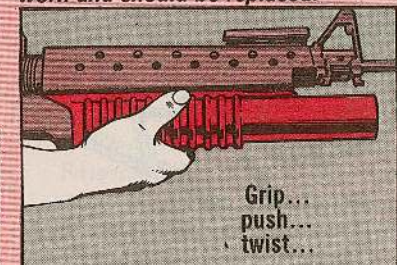
I say this causes unnecessary wear...and loosens the extension. Best way I've found is to:

1. Cock the weapon.



2. Grip the barrel and put upward pressure on it.

3. Twist the barrel back and forth. If the barrel opens, the extension is worn and should be replaced.



Can you get something in PS on the correct way to check the extension?

SSG D. A. F.

Dear Sergeant D. A. F.,

You're right. The extension can be damaged. Fact is, I can't improve on your method, but I can say thanks for being concerned about your equipment and for passing on the information to others.

LET'S HOPE THAT THE TROOPS WHO READ YOUR METHOD WILL SEE THE ADVANTAGES OF IT!



Take 'em OFF for

CLEANING

FORGET THE STOP AT 9/55th ADA, SANTA...

...IT'S TOO LATE NOW FOR OUR VULCAN BARREL CLEANING POOP!

COMPETITION RUDOLPH?

NO, JUST POOR VULCAN, PM!

Vulcan crews clean the 20-MM M168 cannon barrels, right? Trouble is, some crews clean the barrels while they're still mated to the cannon rotor.

They don't know that they're supposed to remove the barrels before making macho with the cleaning tools.

Get the dirty picture? They push all the carbon, dirt, grit 'n' junk back into the barrel chamber when they clean the barrels from the muzzle end.

A dirty chamber you can do without...always. Junk increases the tremendous pressure in the chamber. Could blow your mind—or worse—when you fire the Big Daddy 6-gun.

NEVER clean mounted barrels

NEVER clean barrels from...

...muzzle end!!

The operator's manuals for the guns are poop-shy when they paint this part of the M168's PM picture.

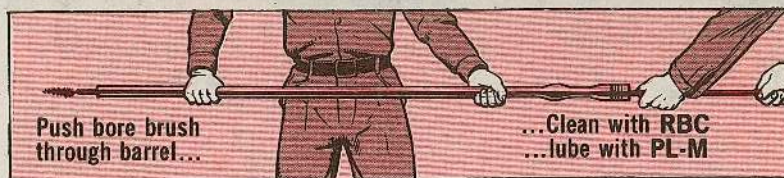
Frinstance, Para 3-21, Sect VIII, TM 9-2350-300-10 (May 76) says the crew cleans the barrels with staff and bore brush loaded with PL-M. No word that the barrels should be off the gun for this cleaning job.

Remove barrels for cleaning

RBC is the new cleaner for this job!



Crank this take-off-the-barrels-for-cleaning deal into your SOP for both Vulcan systems. It'll be spelled out for you in the next revision to your operator's manuals. The revision also changes the cleaning material from PL-M to RBC—Rifle Bore Cleaner.



PRIME PM POINTS

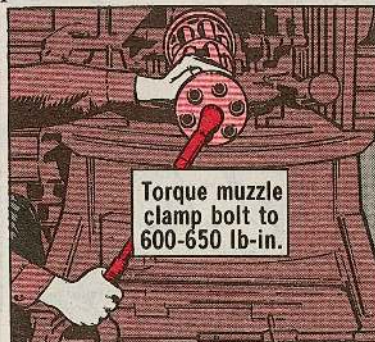
—All 6 barrels are matched as a set for each gun. When cleaning barrels from several guns at the same time, be sure to keep each set tagged—or together. Then match 'em with the right gun for the next operation.

If you have to replace a barrel before all 6 barrels reach the accumulative rounds fired interval—72,000—the new barrel assumes the accumulative rounds fired of the others.

Replace it—and the others—at the next scheduled accumulative rounds fired interval. Log the rounds fired on DA 2408-4 cards.

This info is in Change 3 to TM 9-2350-300-20-1. However, the same barrel change poop goes for the Towed Vulcan, so make a note of it in Para 2-28b.

Be sure you use the cotter key every time you put the center clamp back in place.



—Never guess that you have the right torque on the muzzle clamp bolt. Use the torque wrench and adapters from your authorized tools for the 600-650 lb-in torque called for.

Hold That SP Vulcan Weld!

HERE'S WHAT YOUR WELL-DRESSED SP VULCAN SHOULD WEAR...



CAUTION
REMOVE FUEL BLADDER BEFORE
WELDING ON OR DRILLING INTO
FUEL CELL WALL

If you didn't remove the fuel cell bladder from the M741 track of your SP Vulcan, then put that welding torch down!

Same goes for the power drill!

In other words, if you're about to weld or drill on the fuel cell walls of your M741, first you've got to remove the bladder. If you don't, you can drill or burn through it...which makes for a nasty leak.

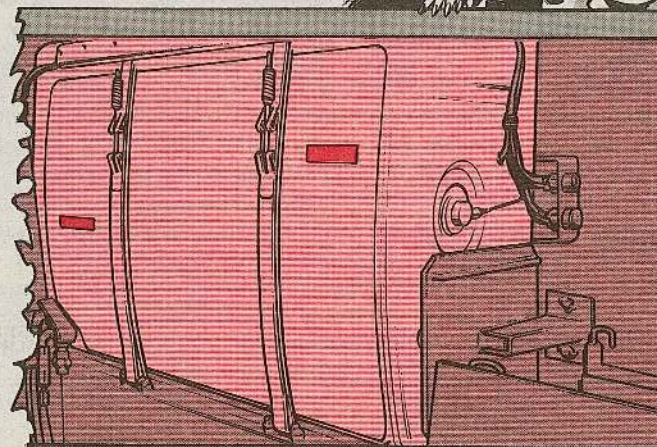
Before you weld, drain the fuel and purge the fuel cell of fumes. That prevents explosions, fires, damage and injury.

For a permanent reminder on Bladder Removal, you can get a caution decal or 2 and stick them on the fuel tank cover.

NSN 7690-01-062-

5656 gets a decal for you.

PUT THE DECALS ON LIKE SO...



Keep Your Redeye Springy

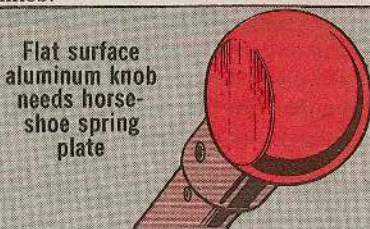


The knob on your M49 Redeye only the flat plate...for the plastic missile system trainer pump handle needs a quick look before you request replacement spring plates and pins.

The old plastic knob and the replacement aluminum one need different plates and pins. They're not interchangeable.

The aluminum knob has a flat surface next to the trainer tube.

The plastic knob needs spring plate NSN 6920-00-122-1062 and spring pin NSN 5313-00-587-2705. Fig 7 of TM 9-6920-428-24P (May 78) shows the aluminum knob needs horseshoe-shaped spring plate NSN 6920-00-475-8245 and spring pin NSN 5313-00-802-8565.

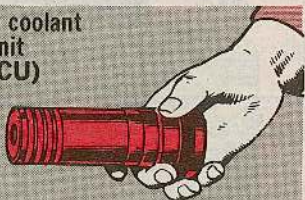


Redeye BCU Screw-Up



Screw it up. Screw it a-l-l the way up! That's the way you do it when you install the battery coolant unit (BCU) in your Redeye launcher.

Battery coolant unit (BCU)



You've got to use a little muscle (not much) on the bottom of the BCU in order to engage the threads.

If you don't screw it all the way up, BCU contacts won't align with launcher well contacts...and battery voltage won't reach the launcher. You'll shoot blanks...and you'll probably bend or break the launcher pins.

Remember: Push up, engage threads, screw all the way up.

M551/M551A1 Sheridan--

LOOKS TO THE FUTURE

The future still looks good for the M551/M551A1 Sheridan.

The Sheridans in the 82d Airborne Division will be given the complete RAM PIP (Reliability-Availability-Maintainability Product Improvement Program). That gives a meaner and leaner machine to fly with the airborne troopers.

Among the 40-odd improvements is the M240 coaxial machine gun which will replace the M219. The M240 is more reliable and easier to service and fires about a third faster than the M219. The M240 has a quick-change barrel and is smaller and lighter than its predecessor. You can field strip it without tools; it's easier to remove and install.

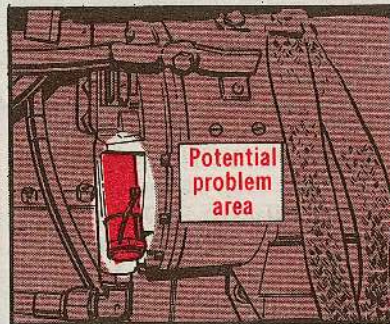
The Sheridan also will be used at the new National Training Center (NTC), Fort Irwin, California, in modified configuration. It will serve as the opposing forces (OPFOR) vehicle. In this job it is expected to be operationally available 300 days per year and capable of rolling 3,000 miles per year. It'll operate with the Multiple Integrated Laser Engagement Simulation (MILES) system both day and night.

Training packages and mobile training teams will support the training of crews and maintenance troops in both the active and NTC OPFOR units.

AVDS 1790-2C RISE Engine...

650-Amp GENERATOR needs ADJUSTMENT

The 650-amp Bendix generators, NSN 2920-00-441-8137, used on M60A1 (RISE), M60A1 RISE-Passive and M60A3 tanks may need immediate adjustment to head off engine damage. Your command got the word in DRCPM-M60 letter (25 May 79), Sub; 650 Ampere Alternators used on M60-Series Tanks.



The oil pressure relief valve setting may be wrong. Pressure build-up will force the end plate away from the generator. This'll let oil run out. The engine'll lose its oil and you'll lose your engine.

At the next scheduled service—and before cold weather sets in—pull the power pack and check the generator. All generators serial numbers 6693 thru 7679 and 8500 thru 9637 may need adjusting.

IF THE VALVE ADJUSTING SCREW IS COLORED YELLOW, LEAVE IT ALONE! THAT GENERATOR IS OK!



DIDN'T YOU GET DRCPM-M60 LETTER OF 25 MAY 79?

?
LETTER?



JONES-- YOU KNOW ANYTHING ABOUT A LETTER?

LETTER, SARGE?

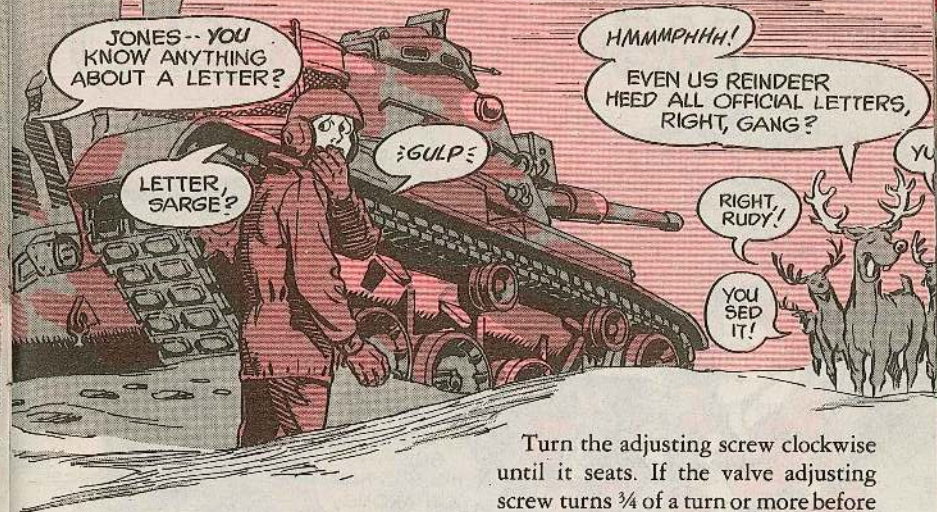
!GULP!

HAMMMPHHH!

EVEN US REINDEER HEED ALL OFFICIAL LETTERS, RIGHT, GANG?

RIGHT, RUDY!

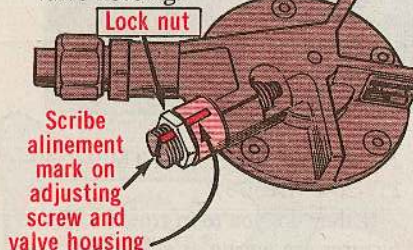
YOU SED IT!



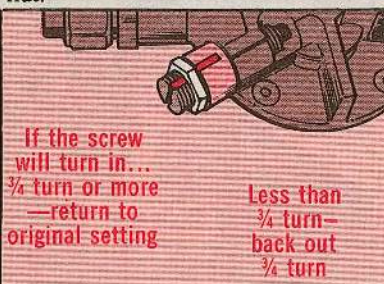
Turn the adjusting screw clockwise until it seats. If the valve adjusting screw turns $\frac{3}{4}$ of a turn or more before it seats, return it to its original setting, tighten the lock nut and safety wire it.

If the adjusting screw seats in less than $\frac{3}{4}$ of a turn, back the screw out $\frac{3}{4}$ of a turn from where it seated. Tighten the lock nut and safety wire it. Use NSN 9905-00-595-8289.

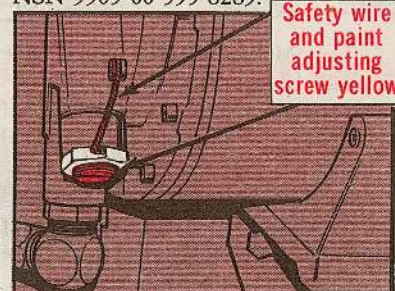
For the rest, scribe an alinement mark on the adjusting screw and the valve housing.



Cut the safety wire. Loosen the lock nut.



Safety wire and paint adjusting screw yellow



Now you have to mark the generators.

Paint the exposed end of the adjusting screw yellow. NSN 7510-00-145-0559 gets an ounce of epoxy base yellow marking ink and 7510-01-055-6695 gets a pint.

M60A1 (RISE)



WHAT HAPPENED?

SOME GUY PUT HIS BUS BAR ON WRONG, SANTA!

Two M60A1 (RISE) tanks have already been burned up.

Your tank could be the next to go if its generator bus bars are mounted wrong.

If a bus bar rubs against the fixed fire extinguisher line, it will set off sparks that could start a fire in the engine compartment.

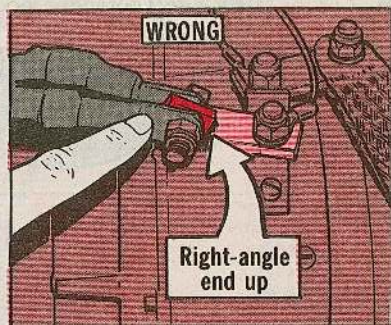
Even if there is no fire, the sparking could knock out your fixed fire extinguisher system.

So pull your power pack and check out your generator.

Does the way the bus bars are mounted look like the pictures on page

2-302 and 2-303 of your TM 9-2350-257-20-1 (Dec 75)?

If they do, you're in trouble. Those pictures are wrong as a \$3¼ bill.



TANK WARNING

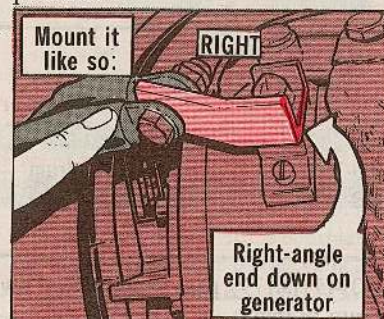


The straight bus bar has to be put in so the ground strap is as close to the flywheel (rear) end of the engine as possible.

The contoured bus bar has to be attached so that the cables are as far away from the generator as possible facing in the direction of the front (damper) end of the engine. The threaded end of the generator/cable bolt must be pointing inboard, toward the engine.

In case the straight bus bar is too beat up for effective use, get yourself another one, NSN 6150-00-476-0371 (P/N 11673856).

If it's the contoured bus bar you need, order NSN 6150-00-476-0381 (P/N 11673850).



Right-angle end down on generator

Loader's Hatch Seal Deal



YOU MEAN, A HOLIDAY SEAL ISN'T APPROPRIATE?

Loader's hatch seal
NSN 5330-00-878-4188

Here's the deal if you need a loader's hatch seal:

You can order it as Rubber, strip, NSN 5330-00-878-4188.

Make a note on page 61 in your TM 9-2350-257-20P-2.

AIR CLEANER



Washing is now the way to clean all air cleaner elements in your armored personnel carriers and an alternate way for tanks. Your TM's will soon be updated to show this.



SUPPLIES	
Detergent NSN 7930-00	Size Container
-985-6904	20-oz box
-990-7391	25-lb drum
-929-1220	50-lb drum

You'll also need a washing tub. TM 43-0143 (Jan 79), page 3-2.8, shows how to make one. Or, you can cut a 55-gal drum in two.

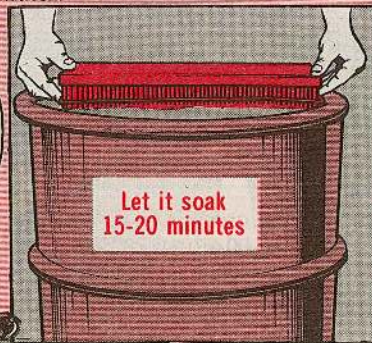
PROCEDURE

Use air gun, NSN 4940-00-333-5541, to blow the air cleaner element clean. The gun's in your No. 1 and No. 2 Common shop sets. Blow air from the inside of the filter toward the outside. Wear goggles! Use no more than 30-PSI air.

SHAKE OR TAP THE ELEMENT BY HAND TO GET RID OF LOOSE SURFACE DIRT!

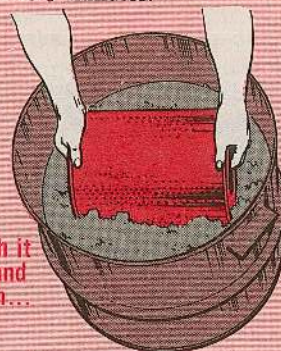


Soak the element in soapy water for 15- to 20 minutes. Use a mix of 2 ounces of detergent to 1 gallon of water.



CLEANING

Slosh the element in the soapy water 2 to 3 minutes.

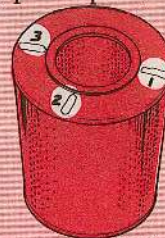


Slosh it up and down...

Rinse with clean water.

Blow dry 2 to 3 minutes to remove excess water. Set the element out to dry. Be sure the element is completely dry before you use it in the vehicle.

Mark each element on a metal surface every time you wash it. Use a felt tip pen or paint.



3 washings are limit for M113 element

Toss out the M113 filter element when it needs cleaning for the 4th time. Three washings are all it can take. Put in a new one.

Filter elements for the M60-series vehicles will hold up for 6 washings. Replace 'em when they need cleaning the 7th time.

M60-Tank Air Cleaners...

Give 'Em a Clean Sweep

CHEE! FULL OF COOKIE CRUMBS!



Cleaning the top-loading air cleaner box on those M60-series tanks is a bear. You have to get all the dirt and sand and crud out. If you don't, your new clean filter element will clog up right away.

You can sweep it clean with a compressed air vacuum cleaner, NSN 7910-00-807-3704. Connect it to any compressed air system...like in your 2½-ton truck.



Tank Air Filter Guide

There's a new pub out that tells you all you need to know about cleaning and taking care of tank air filters, both side-loading and top-loading.

HERE IT IS--

YOU CAN
GET YOUR
COPY BY
WRITING
TO THIS
ADDRESS...

Commander
USATARCOM
ATTN: DRCPM-M60-L
Warren, MI 48090



GOOD INFO ON YOUR M48 TOO!

MARCH 1979

NEED A LIGHT?

Hey, track-types, are you in the dark about which searchlight matches up with your machine?



18

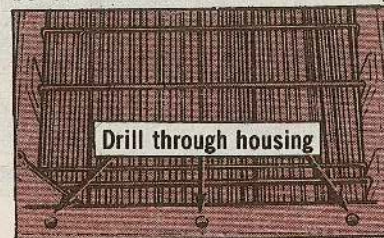
Vehicle
M48A5 Tank M60 Tank M60A1 Tank, Serial No. 6742 and lower M728 Combat Engineer Vehicle (CEV)
M60A1 (RISE) Passive Tank, Serial No. 6742 and lower M60A2 Tank
M60A1 (RISE) M60A1 and M60A1 (RISE) Passive Tanks, Serial NO. 6743 and up M60A3 Tank
M551/M551A1 Sheridan

M60 Tanks...

Air Cleaner Fix

Filter element cover bolt holes on some of those top-loading air cleaners are not drilled all the way through the housing.

Dirt settles in the bolt holes. The bolts bottom out in the dirt before they



are tight enough for a good cover seal. If you keep tightening, you might strip the threads on the bolts or in the housing.

You can fix it, tho. Drill through the housing at each of the 3 cover bolt holes on each air cleaner housing. Then the dirt will drop on through into the air cleaner.

You'll have to get your support to make a drill guide and a drill stop for you. TB 43-0001-39-1 (Apr 79) tells how.

Your TARCOM field maintenance technician will also have the info.

Searchlight Type (NSN)	LIN	Installation Kit
AN/VSS-1(V) 1 (Black Filter) 5855-00-137-7696	S67421	None
AN/VSS-1(V) 2 (Pink Filter) 5855-00-137-8289	S67421	None
AN/VSS-3A (Pink Filter) 5855-00-405-0404	S66941	5855-00-114-4953 (Must be ordered separately)
AN/VSS-3A (Pink Filter) 5855-00-405-0404	S66941	5855-00-114-4949 (Must be ordered separately)

THANKS, SC!

Common \$e

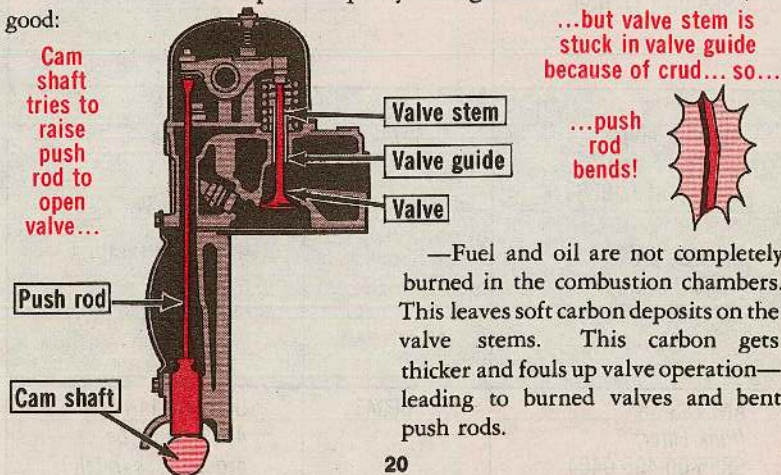


Save energy? Right—but not at the cost of your expensive engine. Or even at the cost of time, labor and parts to repair your engine.

Cold weather really sticks the knife into engines. Engines like it hot—up to their normal operating temperature. They run better. They last longer.

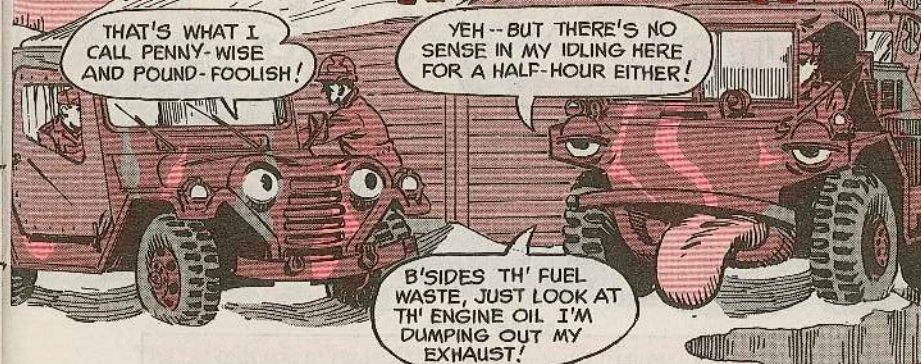
But you twist that knife when you don't let your engine get up to its normal operating temperature. Like letting it run at low idle for a long time. Or worse, starting it up and then shutting it down—over 'n' over again—before it gets a chance to get fully warmed up.

Here's how low-heat operation puts your engine on deadline—or on ice, for good:



—Fuel and oil are not completely burned in the combustion chambers. This leaves soft carbon deposits on the valve stems. This carbon gets thicker and fouls up valve operation—leading to burned valves and bent push rods.

n\$e \$ave\$



—Condensation and unburned fuel get by the pistons—blowby—and into the crankcase. This causes acid and sludge in the engine oil.

—Condensation from normal engine "breathing" builds up in the crankcase because it never gets boiled off. More acid, more sludge.

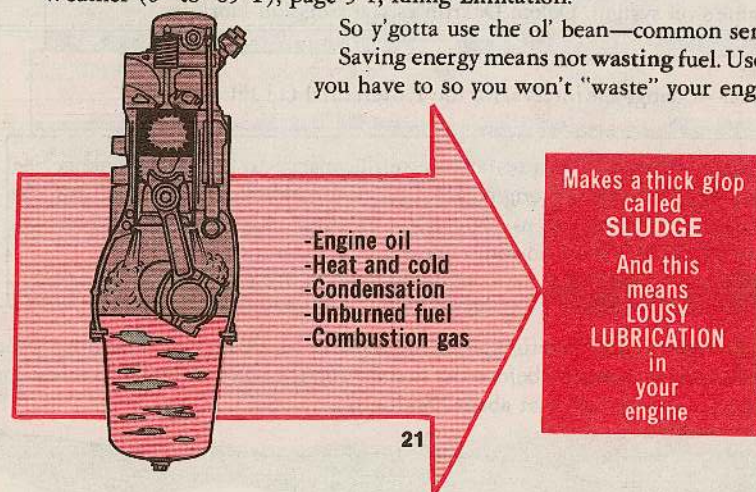
—Engine oil goes to pot. Poor lubrication burns up bearings.

—Sludge blocks lube passages. Oil can't get through to lube and cool. Heat and friction tear up your engine.

Sure, "engine idling is a wasteful and hazardous practice"—like it says in FM 9-207 (Jan 78), Operation and Maintenance of Ordnance Materiel in Cold Weather (0° to -65°F), page 3-1, Idling Limitation.

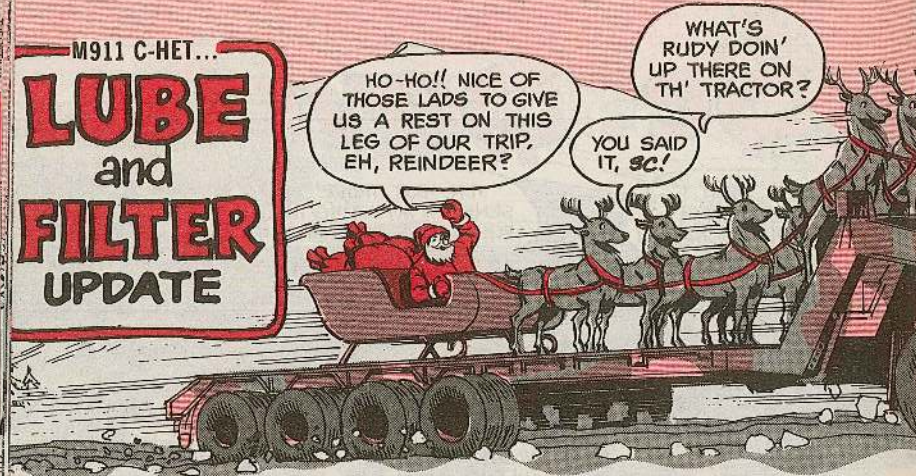
So y'gotta use the ol' bean—common sense.

Saving energy means not wasting fuel. Use what you have to so you won't "waste" your engine.



M911 C-HET...

LUBE and FILTER UPDATE



LO 9-2320-270-12 (Oct 77) has some glitches in it and the TM-20P doesn't list all the filters needed to pull scheduled services.

Update your LO with this info until the headshed makes the official change:

LUBRICATION ORDER

LO 9-2320-270-12

5 OCTOBER 1977

Card 1—Delete the entry for the fan clutch housing. That clutch is lubed by the engine's oil system. Delete Dexron as transmission lubricant.

Card 2—Change the interval for the Differential Oil Filter to A.

Card 5—Change the transfer case refill capacity to 20 quarts. Change the arctic lube column for engine oil, to OEA. And change the lube for the automatic transmission to OE/HDO 10 (OEA for arctic). Delete the entry for the fan clutch housing (line out ATF Dexron II).

To Note 3 add: "The first oil change is due at 10,000 miles or 6 months. If the transmission needs oil before the first oil change, add OE/HDO 10 (OEA for arctic). (Line out all that about Dexron oil.)"



Filter Facts

The LO tells you to replace the filters for several components. But your TM-20P has no filter elements for the transmission, winch or power steering reservoirs, or for the forward rear axle differential.

NSN/PN	Filter/Part	Interval
2940-00-580-6283	Transmission external filter	Semiannually or 25,000 miles
4330-01-061-9202	Winch reservoir filter element (2 req'd)	Semiannually
2530-00-432-1761	Power steering reservoir filter	Annually or 10,000 miles
FSCM81142 PN81474	Forward rear axle differential filter element with spring and gasket	Annually or 12,000 miles
FSCM81142 PN81476	Preformed packing for forward rear axle differential filter cover	Annually or 12,000 miles

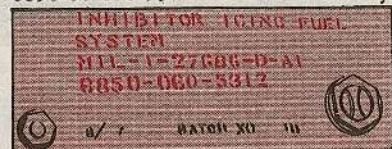
THIS CHART TELLS WHAT AND WHEN...



Inhibitor OK for Diesel Fuel



Diesel fuel gets along just fine with Inhibitor, Icing, Fuel System, NSN 6850-00-060-5312—so don't worry



about that caution on the container:

CAUTION—TO BE USED ONLY AS AN ANTI-ICING ADDITIVE FOR JET TURBINE ENGINE FUELS

This is the icing inhibitor listed on page B-1, FM 9-207 (Jan 78), Operation and Maintenance of Ordnance Materiel in Cold Weather (0° to -65° F).

Careful! Not too much icing inhibitor in your diesel fuel—or you'll wind up with bum engine performance. A pint of inhibitor to 40 gallons of fuel is right. You pour the inhibitor in your fuel tank and then put in the fuel. That's the word on page 2-7 of FM 9-207.

Guard Your Rear...

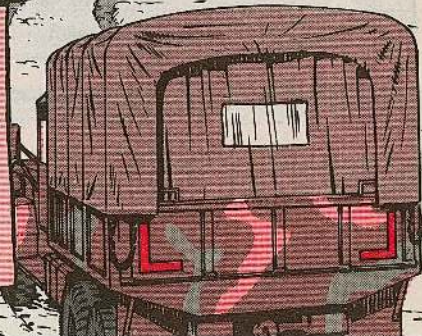
Reflective Tape NSN

Dear Half-Mast,
AR 55-162, para 11 c., requires red reflective tape on the rear of convoy vehicles at night on CONUS public highways. How do we get the tape?
J.W.N.

Dear J.W.N.,
NSN 9390-00-949-7589 gets a 50-yd roll 2 inches wide. It's from GSA Schedule 93, Part 2. You can get it with an exception-data request using advice code 2A if you can't get it locally.

Half-Mast

24



TM-218-Series ¼-Ton Truck...

Carb Hose Juggle



Check the AMDF before you order bulk hose, NSN 4720-00-403-0875. This's the right hose for Items 15 & 16, Fig 15; Items 9 & 10, Fig 16; Item 1, Fig 20; and Item 1, Fig 21; in TM 9-2320-218-20P (Dec 78). All these have Part No. 11660435. Until that NSN shows up in the AMDF, you can get a substitute with NSN 4720-00-610-7842. It's a 12-in hunk of hose—long enough to make any of those 5 items.

Bum Steering Wheel?

MINOR DEFECTS DON'T MAKE YOUR STEERING WHEEL UNSAFE!

A lot of steering wheels on tactical vehicles are being replaced when there's no need for it.

Heat distortion, hairline cracks or small chips in the plastic/hard rubber jacket of the steering wheel are OK. Minor defects such as these don't weaken it or make it unsafe.



25

WELL... IT IS
A 1/4-TON SLEIGH,
BONNIE!

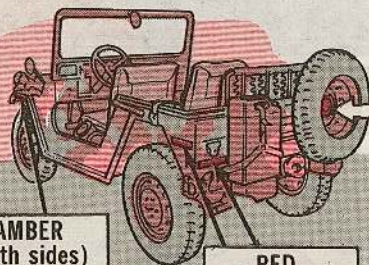
1/4-Ton Reflector Update

M825 and M718A1, but it's OK for the utility trucks, too. There's no Usable On Code specified.

The only tape-type reflector still needed is the one for the old-shape spare tire clamp. This reflector gets sealer, surface, reflector tape, NSN 8030-00-936-9940, around the edge to keep wet 'n' weather from getting under. This is not yet in AMDF—order by exception data.

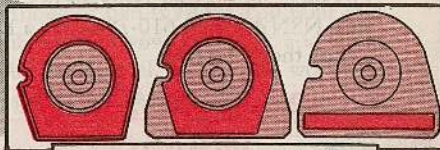
Yes, you can put the new hard plastic stick-on reflectors on your older M151-series 1/4-ton vehicle—if your own command gives you the nod.

TM 9-2320-218-20P (Dec 78), Fig 101, shows the amber strip only on the



AMBER
(both sides)
NSN 9905-01-
060-8528

RED
(both sides)
NSN 9905-01-
060-8527



Any of these spare wheel
retainer reflector setups is OK

20-Ton CCE Dump Truck...

Preheater Parts

Here're the preheater repair parts for your IHC F-5070 20-ton dump truck listed on page 135A in your special parts catalog:

Glow Plug, NSN 2920-00-757-7144.
Preheater Switch, PN 443920C1.
Primer, Hand Assy., PN 106452R91.
Decal, Pump Primer, PN 396746C1.
Light Indicator, PN 415212C91.
Lamp Indicator, PN 127934.
Gage, Preheater, Pressure Assy., PN 387275C1.
Housing, Preheater, PN 267-627-C2.
Nozzle, Preheater, PN 236985R91.

THE
FSCM
FOR THESE
PART
NUMBERS
IS 31007!

Exhaust Leak? Not Ready!

AR 385-55...
UNSAFE CONDITION...
PROHIBITED...
EXHAUST SYSTEM
LEAKS...

OK, OK!! BUT IT SEEMS LIKE
SUCH A LITTLE LEAK!

Any leak in your vehicle's exhaust system is "an unsafe mechanical condition." Operation of your vehicle with that condition is prohibited.

That's the word in AR 385-55 (Apr 74), para 2-1a(1)(e).

Make a note of this for your Operator/Crew Preventive Maintenance

Checks & Services. For readiness reporting, your vehicle is "not ready" if there's a leak anywhere in the exhaust system.

If the PMCS table in your -10 TM doesn't make this point clear, it will in an upcoming change or revision. Complete exhaust system inspection is a monthly check.

LUBRICATION ORDER

LO 9-2300-257-12

30 JANUARY 1979 (Supersedes LO 9-2300-257-12, 31 October 1973)

CARRIER, PERSONNEL, FULL TRACKED, ARMORED, M113A1-2350-00-968-6321
ENGINE, COMMAND POST, LIGHT, TRACKED, M577A1-2350-00-056-6808
ENGINE, M551A1-2350-00-078-9002

M113A1 LO GOOF

LO 9-2300-257-12 (Jan 79) for the M113A1 family of vehicles needs a couple of pen and ink changes to get it back on track.

Those notes on Cards 3 and 4 about using PE oil until the first scheduled oil change are not supposed to be there. X them out.

When you get a new vehicle, or when you have had the engine or transmission replaced, check the engine or transmission tag—DD Form 1397. It will tell what oil is in the unit. If either the transmission or engine is filled with PE oil, drain and refill with the oil called for in the LO.

NOTE: If engine has been filled with (PE) oil (preservative engine oil) by the manufacturer or at time of overhaul, drain and refill with (OE/HDO) oil until the first scheduled oil change. Maintain operating oil level by adding the applicable grade of oil (OE/HDO) to the (PE) oil. When the first scheduled oil change is made, drain and refill with the applicable grade of oil (OE/HDO).
NOTE: If transmission has been filled with (PE) oil (preservative transmission oil) by the manufacturer or at time of overhaul, drain and refill with (OE/HDO) oil until the first scheduled oil change. Maintain operating oil level by adding the applicable grade of oil (OE/HDO) to the (PE) oil. When the first scheduled oil change is made, drain and refill with the applicable grade of oil (OE/HDO).

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, TM's, TB's, etc.; DA Pam 310-6, SC's and SM's and DA Pam (C) 310-9, COMSEC pubs.

TECHNICAL MANUALS

TM 5-6115-585-24P Jul Gen set, DED, 10-KW MEP-003A
 TM 5-6115-594-14&P-HR Jul Gen Sets, DED, PU-405A/M, PU-406A/M, PU-732/M, PU-760/M, PU-707A/M, PU-495A/G, AN/MJQ-10A, AN/MJQ-15 (C) TM 9-1425-625-12-3 Jun I-HAWK
 TM 9-1425-655-24P Jul AN/TSQ-73
 TM 9-1430-1534-12-1 Jul Improved HAWK
 (C) TM 9-1430-1534-12-3 Jun I-HAWK
 TM 9-1430-1535-12-2-2 Jun I-HAWK
 TM 9-1430-1535-12-2-3 Jun I-HAWK
 TM 9-1450-500-10 Jun HAWK XM501E3 carrier
 TM 9-1450-500-20 Jun HAWK
 Ch 1, TM 9-2320-257-10 Jun M113A1 and M113A2 carrier families

Ch 2, TM 9-2330-267-14 Jul Trailer, tank: Water, M149, M149A1, M625
 TM 9-4935-1549-14 Jul I-HAWK
 TM 11-1520-237-23P Jul UH-60A Avionics
 TM 11-5905-357-24P Sep AN/TCO-61 telephone terminal set
 TM 11-5920-535-24P Oct AN/TRC-110(V) radio repeater set
 Ch 4, TM 11-5640-208-20 Aug AN/MPQ-4A radar set
 TM 11-5841-241-20P Jun AN/APN-158 and 158A radar sets, AS-1520 and AS-1642 antennas
 TM 11-5855-247-24&P Jun AN/TAS-4, AN/TAS-6
 TM 11-6230-203-24P Jun Light sets MK-222/G, MK-222A/G, MK-222B/G
 TM 55-1510-217-PMD Jul OV-1B, OV-1C, OV-1D, RV-1D
 Ch 3, TM 55-1520-314-PMS Aug OH-6A
 TM 55-1520-221-23-1 Jul AH-1G, AH-1Q
 TM 55-1520-221-23-2 Jul AH-1G, AH-1Q
 Ch 5, TM 55-1520-227-23-1 Aug CH-47B, CH-47C
 Ch 6, TM 55-1520-227-23-1 Aug CH-47B, CH-47C
 Ch 4, TM 55-1520-227-23-2 Aug CH-47B, CH-47C

CH-47C
 Ch 2, TM 55-1520-237-23-7 Jun Powertrain maint task manual UH-60A
 TM 55-2640-229-24 Aug Engine, turbine T53-series
 TM 55-4920-410-12&P Jul System analyzer test set type 60B63-5A

MISCELLANEOUS

LO 5-4940-228-12 Jun Spray outfit, paint, 3-HP eng, Mod 2A016-3
 LO 9-1450-1528-12 Jun Improved HAWK
 PAM 108-1 Jan Index of Army Motion Pictures, Audio-Visual Aids
 PAM 310-1 May Index of Admin Pubs
 PAM 310-6 Jul Index of Supply Catalogs & SM
 PAM 310-99 Jun Index of Obsolete Pubs
 PAM 750-1 Aug Maintenance Guide of Leaders
 TB 9-2300-307-10 May Identif, special precautions 105MM foreign tank ammo (NATO)
 Ch 2, TB 43-0118 Aug Painting, preserving electronics command eqpt
 TB 385-4 Aug Safety for maint of electrical/electronic eqpt

Goal Truss Bearings

You can now get the bearings for the truss kit on your M561/M792 1 1/2-ton truck. They're shown in Fig 124, TM 9-2320-242-20-P (Mar 77). Item 4 comes with NSN 3120-01-054-4236 and Item 16 with NSN 3120-01-054-4235. The SMR code on both should be PAOZZ. Jot down the NSN's until your TM is changed.

Steering Knuckle Safety

The steering knuckle boot retaining plates on your 5-ton trucks get safety wired. TM 9-2320-211-20, Change 2 (May 78), page 2-151, para 2-183.1 tells you how and NSN 9505-00-595-8289 will get you about 128 feet of the safety wire you need. It only takes about 6 1/2 feet for each vehicle. So if you don't need much, you may be able to get it from your DS unit.

Wrecker Winch Pin

NSN 5315-00-282-2583 will get the shear pin for the rear winch on your M816 5-ton wrecker. It's listed as a DS repair part in TM 9-2320-260-34P/2 (May 73), but it'll be showing up for organizational in TM 9-2320-260-20P. This is the same pin used in M543-series 5-ton wrecker rear winches.

M16A1 Sling

The rifle sling (NSN 1005-00-714-9749) listed in Ch 5 to TM 9-1005-249-20 is the old sling for the M60 machine gun and not the M16A1 rifle. The sling is too long, which makes for problems. What riflemen need is sling M1, NSN 1005-00-167-4336, listed in Ch 3 of the -20 TM. If you need an M60 sling, the padded job, NSN 1005-00-312-7177, currently is authorized.

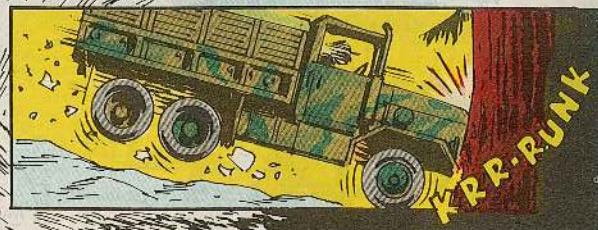


OH--TO
DIE SO
YOUNG FOR
JUST A
BUM TIRE!

NOW, I
GOTTA
CONFESS--
SOME O' THE
OTHER TIRES
AIN'T SO HOT,
EITHER!



WATCH
OUT--
THAT
TREE!



OH,
M'GOSH...

--IT'S A MIRACLE
WE WEREN'T KILLED!

WELL, THAT
TIRE'S NO GOOD
FOR RETREADING
NOW! THE RIM'S
RUINED, TOO!

UH-OH, NORM!
WE'VE GOT
COMPANY!

C-CAVE
MEN!?

HEY! THEY'RE ALL
OVER OL' DEUCY--
NEVER SEEN ANY-
THING LIKE IT,
I GUESS!

ERN... THROUGH
TH' TREES--AIN'T
THAT A VILLAGE?

SHORTLY...

CRAY-ZEE!! THEY
DON'T KNOW ABOUT
OUR WORLD!

LOOK! I MENTIONED THAT OUR TRUCK
COULD USE A TOW TO A CLEAR AREA
SO'S WE COULD MAKE REPAIRS...
BUT THAT IS TOO
MUCH!



ERN-- THAT'S THE
VILLAGE MAYOR,
SAM SANDSTONE...

WOT'S
THAT?

WELL... I KNOW IT'S A WHEEL!
WE INVENTED IT! I WANT T'KNOW
WHAT TH' BLACK THING IS ON THE
OUTSIDE OF TH' WHEEL!

OH...

WHY--THAT'S
A WHEEL, MR.
MAYOR...

...THAT'S A TIRE! IT'S
GOT AIR INSIDE... THIS
MAKES A CUSHION AROUND
THE WHEEL--SO ROAD
SHOCKS WON'T VIBRATE
THE TRUCK TO PIECES!

HMMM

YEAH, YER HONOR...
TH' TRUCK'S REALLY
RIDING ON AIR!
TH' TREAD ON
TH' OUTSIDE OF TH'
TIRE IS FOR TRACTION

☆!!☆!!
SPARE'S FLAT!
IT WAS OK WHEN
I CHECKED A FEW
WEEKS AGO!

WHEN DID YOU CHECK THESE
LAST? THERE ARE ONLY 4
GOOD ONES! THE OTHERS
PROB'LY WON'T LAST 'TIL WE
GET BACK!



GET BACK!
FROM WHERE?
EVEN WITH
GOOD TIRES,
HOW DO WE
GET BACK
FROM THIS
PLACE?

YEAH--GUESS YOU COULD
SAY WE'RE LOST IN
TIME!

BUT THIS STARTED
WHEN THOSE TIRES
COULD'VE BEEN
REPLACED WITH GOOD
ONES! THEN THIS
NEVER WOULD'VE
HAPPENED!

WE'RE
SUNK!

Y'SURE SCREWED UP!
WHY HERE'S ALL Y'NEED T'KNOW ABO
TIRES IN TM 9-
2610-200-20
(Feb 77) AND
TM 9-2610-201-
14 (Aug 75)!

PUBS

THERE'S EVEN
THIS POSTER ON
TIRE PM!

Joe's Dope Sheet

It's wasteful when tires go to pot
And cannot be saved 'cause they're shot.
Retreading's the word,
So don't be a nerd—
Get with it—save Uncle a lot!

WOT'S
THAT?

SEE
TH' BACK
COVER!



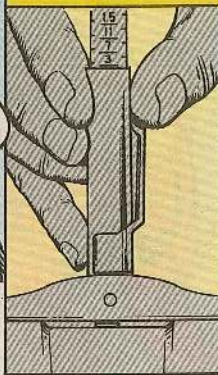
WE HAVE THE WORLD'S BEST EQUIPMENT ... *Take care of it*

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

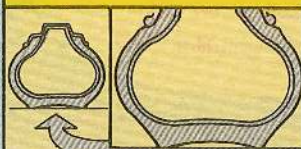
YEAH... AND THIS
 TM 9-2320-209-10/1
 (Oct 76), FOR YOUR
 TRUCK SAYS YOU'RE
 SUPPOSED TO CHECK
 YOUR TIRES WEEKLY
 AS PART OF YOUR
 BEFORE OPERATION
 PREVENTIVE MAINTENANCE
 CHECKS AND SERVICES!

C'MON--
 LET'S DO
 A WALK AROUND
 OF YOUR 2½ TON!

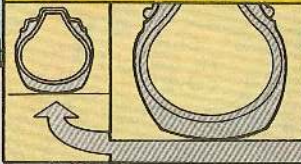
Tire worn too far
 (thread depth less
 than 1/8 inch) to
 allow retreading,
 so replacement
 will cost the price
 of a brand new
 tire.



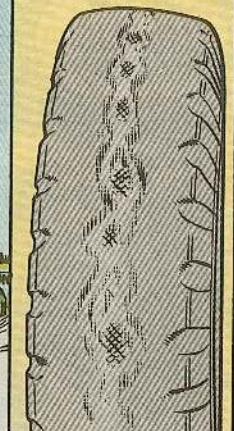
Tire worn heavily on
 outside edges, with
 center barely worn,
 indicating insufficient
 air pressure.



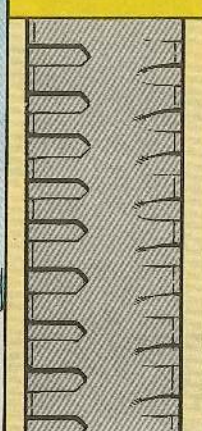
Tire worn heavily in center,
 with little wear on
 outside edges, indicating
 too much air pressure.



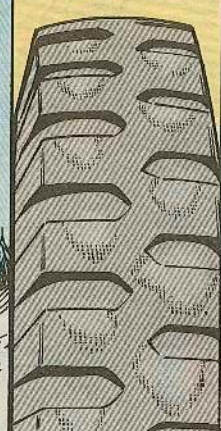
Tire worn
 through to fabric—
 a very danger-
 ous condition.



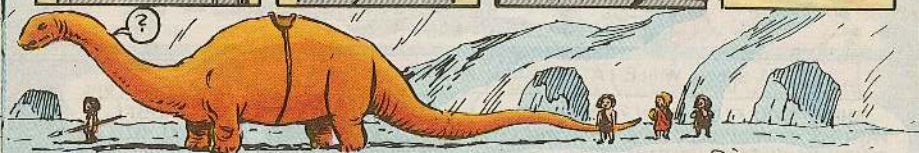
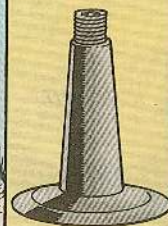
Tire worn
 heavily on one
 side, indicating
 need for front-
 end alignment.



Tire with
 cupped tread,
 indicating need
 to rotate tires.



Valve cap
 missing,
 allowing
 dirt to get
 into valve.



OK, OK-- WE GET
 TH' MESSAGE! BUT
 THAT DOESN'T SOLVE
 TH' PROBLEM OF
 OUR LEFT
 FRONT WHEEL!

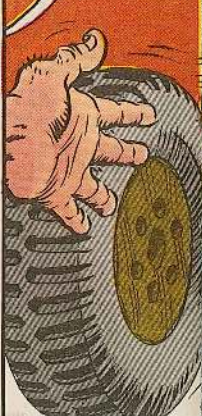
YEH--WE GOT
 SOME NEW
 RETREADS ON
 BOARD-- BUT
 NO TOOLS TO
 MOUNT 'EM!

...MY GOOD OL'
 BUDDY, GEORGE
 GRINDSTONE
 MADE YOU A
 NEW WHEEL...

... AND PUT
 ONE O' YOUR
 RETREADS
 ON IT!

JUST CALL
 ME A
 WHEELER
 DEALER!

OK-- NOW WHERE ARE
 THOSE LUG NUTS I
 PUT DOWN... RIGHT
 THERE...?



WHY DON'T YA JUST BORROW A LUG NUT FROM EACH OF THE OTHER WHEELS?

THEY'LL GET BY IN A PINCH WITH JUST ONE NUT MISSING!



NOW HOW COULD AN UN-CIVILIZED MAN THINK OF THAT?

WELL, WE MAY BE IGNORANT BUT WE'RE NOT STUPID!



SO, QUICKLY...

OK, NORM... WE'RE READY! IT'S BACK TO CIVILIZATION FOR US, PRONTO!

RIGHT, ERN, BUT WAIT...

SAM AN' GEORGE HEARD WHAT OUR MISSION IS... AND INSISTED ON HELPING! HERE THEY COME NOW!



...AND A SHORT WHILE LATER, BACK AT THE KASSERN...

WHERE YOU GUYS BEEN? HAD SEARCH PARTIES LOOKIN' FOR YOU! HEY--WHAT'S THAT? BEEN RE-INVENTING THE WHEEL?

UH, NO... NOT EXACTLY! MORE LIKE RE-INVENTING TIRE AM!



IT'S GORGEOUS, SPECIALIST! WILL YOU HELP ME SET IT UP?

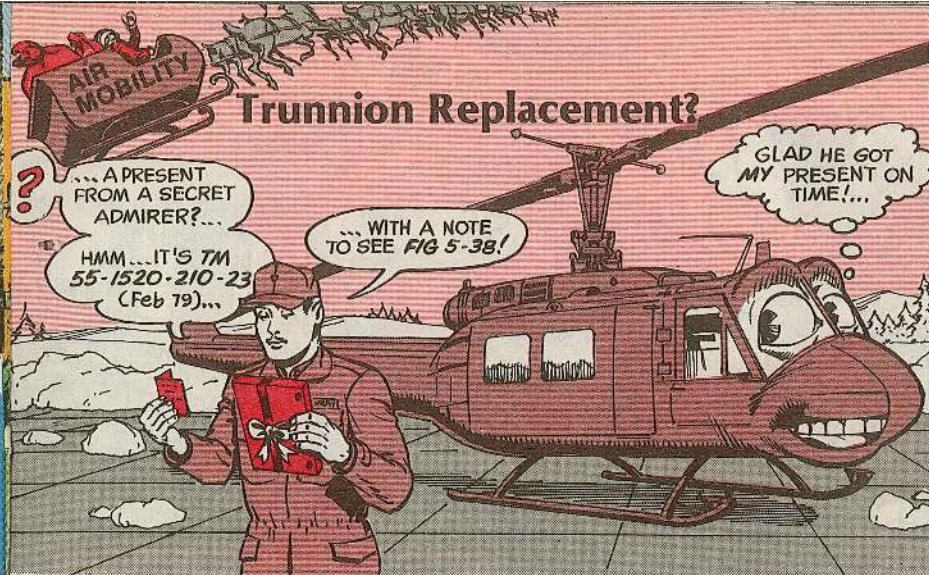
MY PLEASURE, CONNIE!

IM-POSSIBLE! ...AND AS A BOTANY MAJOR, I OUGHTA KNOW!

THIS SPECIES OF TREE HAS BEEN EXTINCT FOR A MILLION YEARS!

Merry Christmas

WOW! IT'S BEAUTIFUL, CONNIE! THANKS TO NORMAN AND ERNEST! ...AN' SAM! ...AN' GEORGE!



...A PRESENT FROM A SECRET ADMIRER?...

HMM...IT'S TM 55-1520-210-23 (Feb 79)...

...WITH A NOTE TO SEE FIG 5-38!

GLAD HE GOT MY PRESENT ON TIME!...

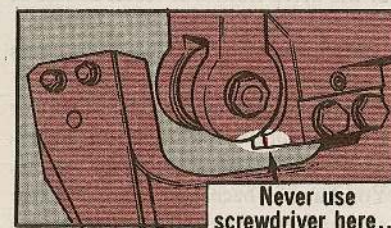
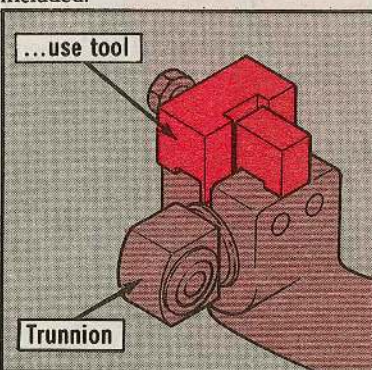
Hold One!

Before you Huey (UH-1B, D/H) mechs replace a trunnion on the swashplate inner ring, use your noggin!

'Course, you have to spread the trunnion housing ears on the outer ring to remove and replace the trunnion.

But never use a screwdriver. Too much spread and the aluminum casting will become sprung. From then on it's only a matter of time before metal fatigue sets in, a crack develops...and maybe a crew buys the farm.

What you want is a controlled spread of those trunnion housing ears and you get just that by using the tool shown in Fig 5-38 of TM 55-1520-210-23 (Feb 79). The dimensions on how to make the tool locally are included.



To prevent damage to the swashplate, even when using the tool, never tighten the bolt more than 3 flats (one-half turn) past finger-tight.



SANTA SENT HIS ELVES TO INSTRUCT MY MECHS IN GOOD COUPLING PM...

LUBE, THE FIRST COUPLING... HERE AT THE TRANSMISSION...

...GREAT CHRISTMAS GIFT, HUH, CONNIE?

... THEN LUBE SECOND COUPLING AT THE NO. 1 HANGER BEARING...

LUBE ALL COUPLINGS EVERY 600-HOURS OR ANNUALLY...WHICH-EVER COMES FIRST!

To Keep 'em Flying...

Lube the



Couplings!

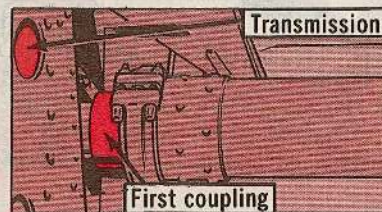
The tail rotor drive shafts on your Huey turn at high RPM's, generating friction and heat. Without grease in the couplings, overheating and seizure of the drive train will result in loss of tail rotor control.

Happens...if a coupling gets overlooked!

For example, the Number 1 hanger bearing—under the engine tail pipe—is not the first coupling in the system. You have to back up to the transmission and lube the quill coupling, which

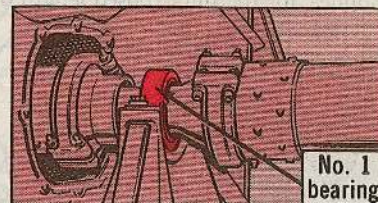
is actually the first coupling in the drive train.

Then, you proceed along the drive train to lube the flexible couplings and the other quill couplings at the gear boxes.



Transmission

First coupling

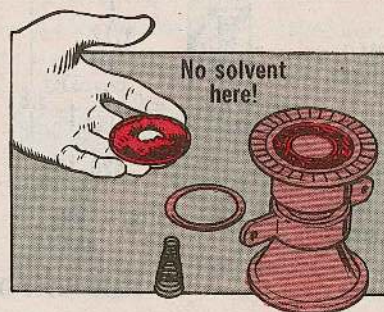


No. 1 bearing

Sure, the quill coupling at the transmission is mighty difficult to reach. Fact is, it takes 2 mechs to remove the clamps. But it only takes one weak link in the drive shaft chain to down a bird!

No Solvent, Please!

When you remove the hanger assembly for the lube chore—during a Phase inspection—never wash, spray or clean the bearing or coupling with solvent. Use a clean, dry cloth on the parts. Solvent will leave a film and the grease won't cling to the coupling splines.



No solvent here!

HE SAYS
JUST "ANY"
GREASE WON'T
DO, CONNIE!

ANY

WAY
TO
GO!

Use Special Grease

Only authorized grease can stand up to the pressures in the rotating drive train. "Any" grease won't hack it.

The lube chart in TM 55-1520-210-23 (Feb 79) shows that the couplings get Anderol L-786 grease. NSN 9150-01-059-4167 or Syn-Tech grease, NSN 9150-00-506-8497 will get you a 6-oz tube.

'Course, getting the 0.12-in coating of grease over the top of the internal splines, for the full exposed length of the splines, can take some doin'.

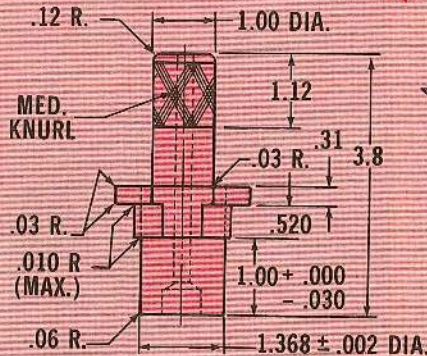
How much
is enough?

A lot of
guesswork is
involved here—
but it needn't
be!

Ask your support outfit
to make up this little tool,
which will give you the exact
coating of grease you need.

To use
the tool...

GAGE (GREASE)



MAT'L: AL 2024-T4
FINISH: NONE

2.330 DIA.

1.640 DIA

250 DIA.
DRILL THRU

.50 R.,
4 EQUALLY
SPACED
GROOVES

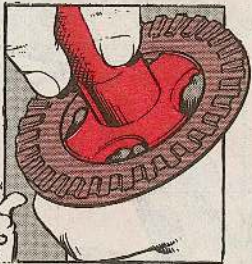
.625 DIA DRILL
× .4 DEEP

.684, 4 PLACES

A
...just make
with the lube
on the splines.



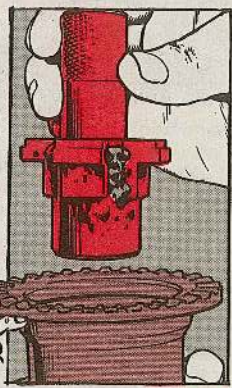
C
Rotate the
tool one full turn
and you'll notice
that the excess
grease is automati-
cally removed.



B
Then
insert the
tool.



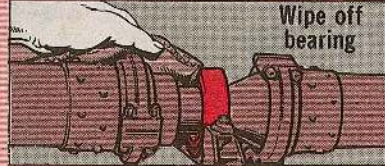
D
Remove the
tool and you're
ready to lube
the other
couplings, easy
as you please.



Never Lube Bearings

The bearing in the hanger assembly is pre-lubed at the factory with a special grease. So, never attempt to lube the bearing with a hypodermic syringe and needle.

Simply wipe off any expelled grease from a bearing during your inspections. Physically check the bearing for binding and any other condition that would indicate it should be changed.



Wipe off
bearing



Binding?

Yessir-e-e-e, those hanger assemblies—especially the couplings—will do the job when you maintain them...all of 'em!

Duplicate Entries Out!

Dear Windy,

We have a dispute going about recording the T-53 engine Health Indicator Test (HIT) check.

Para 5-74 in Change 15 (Dec 78) to TM 55-2840-229-24 says we record the engine data on the HIT log worksheet, locally reproduced from the engine manual. Course, the worksheet is kept in the log book.

My buddy says, tho, that routine HIT checks are also entered on the DA Form 2408-13.

I don't believe we need duplicate entries, Windy. What say you?
SGT D.A.J.

Dear Sergeant D.A.J.,
You're right!

Change 2 (Oct 78) to TM 38-750 deleted the requirement of Para 4-12c(3) (j)3, which formerly called for all HIT results to be listed in block 10c of the DA Form 2408-13.

Now, the only time you enter the check on the -13 (blocks 16, 17, 18)—instead of the worksheet—is when differences between indicated and baseline exhaust gas temperatures are exceeded. That word, in Para 5-74 of the engine manual, will alert the maintenance officer to an engine performance problem.

Windy

Bracket Number

The gunner's cockpit light, located on the armor plating of your AH-1S (MOD), takes a beating. So, if the mounting bracket is broken, ask for Mounting Base, NSN 6220-00-936-9414. It's being added to Fig 160 of TM 55-1520-234-23P.

Save the Sliders!

HERE'S YER SLIDER FIX, SC!

Dear Editor,

The UH-1 sliders take a real beating, guiding the cargo doors. As a result, the plastic wears out and the slider (costing dollars) has to be replaced.

Well, we figured out a way to just replace the plastic inserts at a cost of only pennies.

It's just a matter of removing the worn plastic and replacing it with bearing strip, NSN 1560-00-448-5799. The strip is glued in place.

Replace worn plastic inserts

This is one way to beat the high cost of repair parts.

Raymond J. Bachmeier
Nevada Army National Guard

(Ed Note—Good idea. The head hangar—TSARCOM—is adding your bearing strip to Figs 47 and 48 of TM 55-1520-210-23P.)

Flash Guard Correction

RUDY--THAT'S WHAT YOU NEED--A BLUE FILTER!

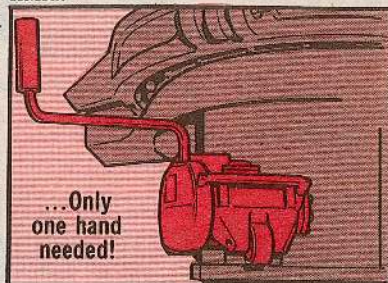
NSN 6230-00-401-2285 gets the flashguard with blue filter that fits on the SDU-5E distress light marker in your SRU-21/P survival vest. Jot down this good number on page 24 in TM 55-8465-215-10 (Jun 70).

For Accurate Torque...

Easy Does It!



the high torque needed on the aft vertical shaft adapter nuts with one hand!



The torque wrench, NSN 5120-00-169-2986, is already in your shop sets. A multiplier, socket wrench and various adapters will be listed in your parts manuals. You'll also find 'em all listed in TB 43-0001-2-4 (Jan 79), the EIR Digest for rotary-wing aircraft.

The info on how to mount all the adapters is being added to TM 55-1520-209-23 and TM 55-1520-227-23. So, keep an eyeball peeled for that important poop.

You CH-47 mechs will find a lot to like about the new Power-Dyne wrench system that has made the scene.

Getting accurate torque on hardware is a breeze. Like, you can get

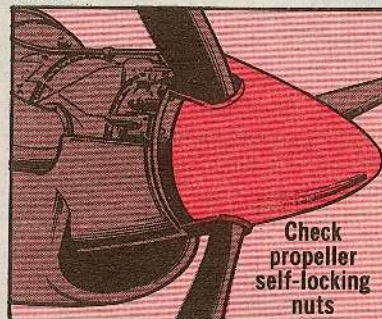
Safety-of-Flight Messages

UH-1-79-13	Safety-of-Fit one-time inspect UH-1B/D/H, EH-1H, UH-1V-Series Collective connecting link, TB 55-1520-245-20-2. DRSTS-MEA 021727Z Aug 79
UH-1-79-14	Not Used.
UH-1-79-15	Maint advis msg UH-1B/D/H, EH-1H Droop compensator installation shear pin inspection DRSTS-MEA 171851Z Aug 79
UH-1-79-16	Maint advis msg UH-1 non-use of message No. UH-1-79-14 DRSTS-MEA 232010Z Aug 79
UH-1-79-17	Safety-of-Fit one-time inspect UH-1B/C/D/H/M, EH-1H tail rotor hub assemblies. TB 55-1520-242-20-1 DRSTS-MEA 272037Z Aug 79
UH-1-79-18 also AH-1-79-16	Safety-of-Fit one-time inspect UH-1 and AH-1 Driveshaft (short shaft) assemblies. TB 55-1520-243-20-2 DRSTS-MEA 272039Z Aug 79
UH-1-79-19	Change to Safety-of-Fit one-time inspect UH-1-Series tail rotor hub assemblies (change to Msg UH-1-79-17). TB 55-1520-242-20-1 DRSTS-MEA 281908Z Aug 79
AH-1-79-15	Safety-of-Fit one-time inspect AH-1S (Mod) Corrosion on shaft assemblies, TB 55-1520-234-20-1 DRSTS-MEA 071951Z Aug 79
CH-47-79-11	Safety-of-Fit one-time inspect CH-47A/B/C electrical wiring. TB 55-1520-241-20-4 DRSTS-MEA 132030Z Aug 79

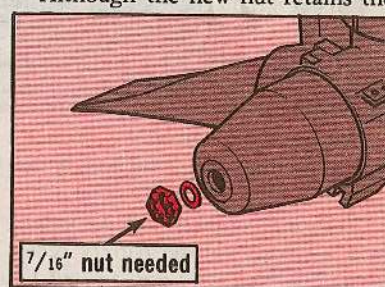


YOU GOTTA PURGE YOUR BIN O' THESE, SPECIALIST!

The first chance you tech supply types get, have a look at the propeller self-locking nuts for U-8 and U-21 aircraft.



The nut you want is NSN 1610-01-074-9401. It replaces the nut listed for the U-21, for example, in TM 55-1510-209-23P (Jul 78)...Fig 86, item 16.



old part number, it has the proper 7/16-in thickness needed and it can be either an all-steel or fiber-insert type of nut.

PURGE THE BIN... OK?



Keep It Dry!

There is no need to lube the new tail rotor control roller chain on your UH-1, Huey mechs. The info on page 2-66 of TM 55-1520-210-PM (Jul 78) is being updated.

COMMO

Installing a BA-4386 Battery...? Keep It Straight

NOT ONLY IS HE
SANTA'S HELPER,
HE'S UNCLE'S,
TOO!

RIGHT
ON!



Straight's the only way to go when you're loading a BA-4386 battery into your AN/PRC-25 or -77 radio set.

Push it in crooked and something will give. Maybe the battery receptacle. That scratches one dry cell. Or, you might break the radio set's plug. That could scratch your bank balance.

Line up
BA-4386
with
radio's
plug

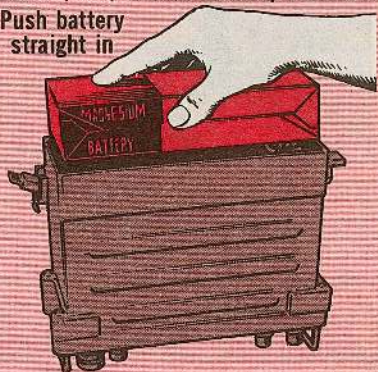


To ward off damage, set the radio on its handles to take out the old battery. That gives you a firm foundation for putting in the new one.

Course, you may have to do a little

jiggling to get the plug pins started into the battery's receptacle. Once it's started, tho, hold the battery level and

Push battery
straight in



push it straight until it's seated.

Finally, pull out the power pack when you're through with the radio for the day. That'll head off gear-killing corrosion damage.

RT-841 Hook-Up Hazards

BRRR-- 20° BELOW!! WOTTA
TIME TO RUN OUTTA
GAS!

CALL FOR
HELP...

C-CAN'T!!
RADIO'S OUT!!
SOMEBODY
MASHED TH' CONNECTOR
PINS!



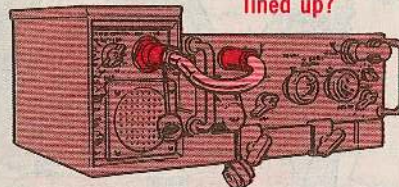
When you connect the power cable between the amplifier and the RT-841 receiver-transmitter of your AN/VRC-64 radio set, line up the key

and keyway before you push the connectors into the jacks. Then, twist.

That's a BIG caution for the power jack on the RT-841. Troops are mashing the pins because the connectors aren't lined up.

Same thing more or less on the vehicular ANT jack on the RT-841. If the RF cable connector and the ANT jack aren't alined right, you can break the tungsten wire in the jack. That means no commo.

Connectors
lined up?



Keeping It All Together

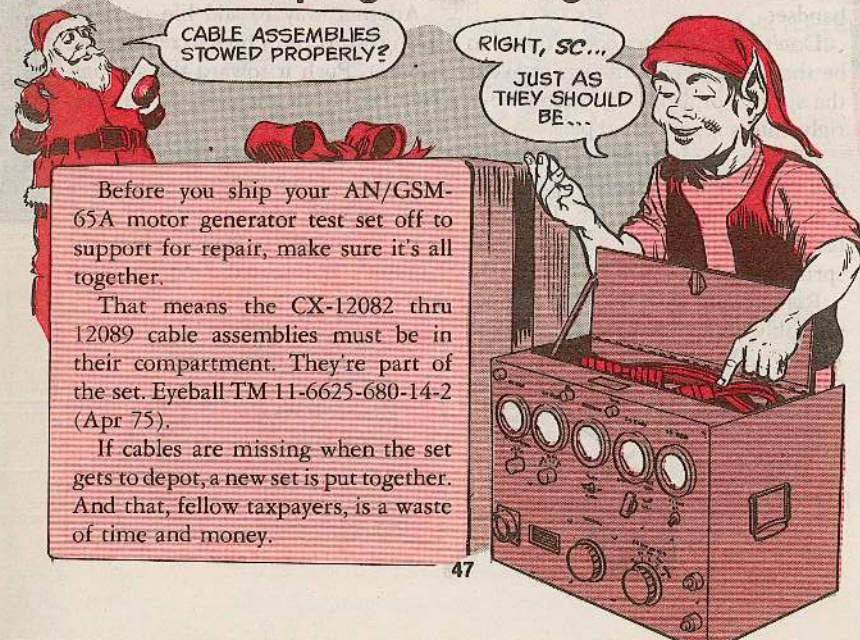
CABLE ASSEMBLIES
STOWED PROPERLY?

RIGHT, SC...
JUST AS
THEY SHOULD
BE...

Before you ship your AN/GSM-65A motor generator test set off to support for repair, make sure it's all together.

That means the CX-12082 thru 12089 cable assemblies must be in their compartment. They're part of the set. Eyeball TM 11-6625-680-14-2 (Apr 75).

If cables are missing when the set gets to depot, a new set is put together. And that, fellow taxpayers, is a waste of time and money.



Telephone Handset Retainers...

Too Tight's Not Right



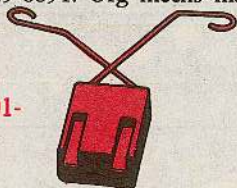
Word is, some folks still test tension on their TA-312 or -43 telephone handset retainers by lifting on the handset.

Don't! The handset doesn't need to be that secure. The lift just weakens the springs or drops the telephone—right into support for repair.

A better test is to set the phone on end. If the handset stays in place, the springs are doing the job. If it falls (catch it of course), replace the springs.

Replace 'em with the new retainer assembly shown in Change 3 to TM 11-5805-201-12 (Jun 67). It's NSN 5805-01-025-8891. Org mechs make the switch.

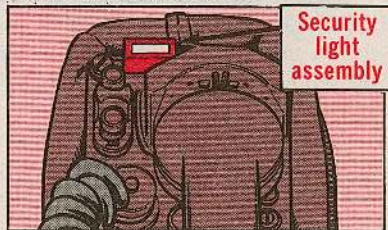
Retainer assembly
NSN 5805-01-025-8891



Another way to add life to those springs is to know how to remove the handset. Push it toward the springs. Then lift from the rear. Saves wear and tear.

One final telephone tidbit.

If sensitive info is being passed, you may want to add the set's off-hook light assembly. It lights when the handset's not seated. Order it with NSN 5805-00-782-9210.



Security light assembly

Now You See It

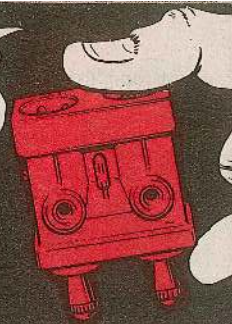


~~*!!
CAN'T FIND THOSE PHONES IN TH' DARK!

NO SWEAT!
USE THIS NEON LIGHT INDICATOR!

YEH-- AN' WHICH ONE IS RINGING?

BR-RING! RING!



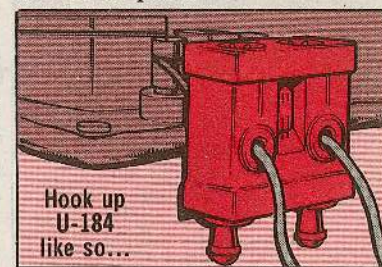
Need to "see" your TA-312 or -43 telephone set ring?

Then add a U-184/GT connector adapter. NSN 5805-00-708-2203 brings you the neon light indicator.

Course, you still get the sound. The incoming ring lights the light while it buzzes the buzzer.

To use the U-184, remove the wires from your set's binding posts. Strip away an extra inch or so of insulation.

Slip the wire through the adapter and back to the posts.



Hook up U-184 like so...

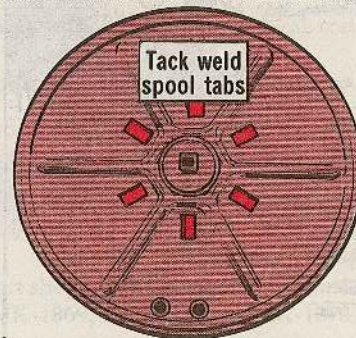


A Reel Side Splitter

Heard the one about the wireman who didn't keep tabs on his DR-8 cable reels?

You know, the spool tabs that hold the end discs. On some older reels, the tabs are only bent over. They should be tack welded to the disc by support.

Anyway, his weren't welded. He dropped a full reel one day. Off popped a disc, out spit the wire, and up went his pucker factor.



Tack weld spool tabs

TE-23 Tool Kit



Dear Macon,

What tools make up the TE-23 tool kit for groundmen? We can't find any listing for the kit. NSN 5180-00-408-1242.

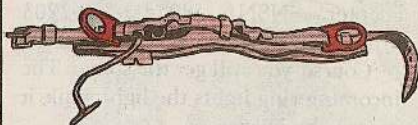
SFC B.H.

Dear Sergeant B.H.,

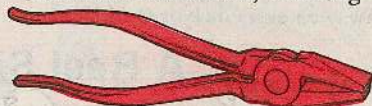
You're right...there's no supply catalog for the 3-piece kit.

It's made up of:

BELT: safety, industrial, leather, lineman's, NSN 4240-00-684-7317

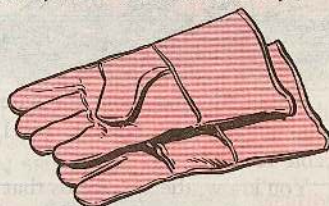


PLIERS: lineman's, forged steel with side cutters; 8-in long



NSN 5120-00-239-8251

GLOVES: leather work type; gauntlet cuff; cream or light grey; small, NSN 8415-00-274-2431



NSN SIZE
8415-00-
274-2432 medium
274-2433 large
274-2434 x-large

USE THESE
NUMBERS FOR
LARGER SIZES!



String 'Em Up

OUR ORNAMENTS KEEP FALLING OFF!

TRY NSN
4010-00-222-4482!



Dear Macon,

We need help in protecting our Pair-26 cable connectors.

The wire rope holding the U-185, -186, and -187 connector covers breaks and we don't have the fixin's to replace it. Without it, the connector covers can be lost. This leaves the connectors open to dust and moisture.

Got any suggestions?

PFC M.D.J.

Dear Private M.D.J.,

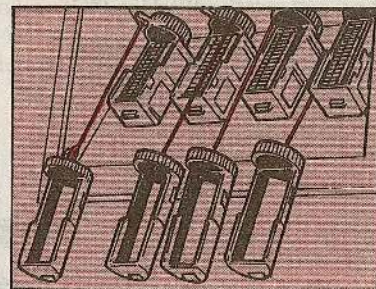
Sure do.

NSN 4010-00-222-4482 gets you the wire rope. Order it by the foot.

Fasten the rope with swaging sleeves. NSN 4030-00-431-5536 brings 100. A compressing tool to crimp the sleeves is NSN 5120-00-323-2292.

Everything listed is OK'd in Appendix A, CTA 50-970.

Macon



Remote Control



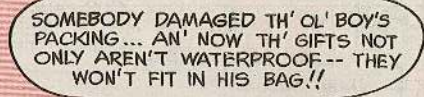
Remove audio installation kits are now available to give you in-cab control over your M880-series truck-mounted radio sets.

So far, only 2 are in the system—for the M882 and M892. They are:

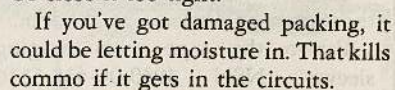
Remote Kit	NSN	Radio
MK-1869	5820-01-048-0761	AN/VRC 46, -64, AN/GRC-160
MK-1870	5820-01-049-1018	AN/VRC-47

Both kits are installed by your support shops. Installation and parts info are in TM 11-2300-459-14&P-5 for the MK-1869, and -4 for the MK-1870.

“GRRUMBLE”



Age kills the rubber, of course. You do too, tho. Like when you slam the lid. Or close it too tight.



You organizational maintenance types can replace bad ones.

Packing NSN

5330-00-095-2256
5330-00-884-2491
5330-00-892-4111

HERE ARE THE
NUMBERS
YOU NEED...

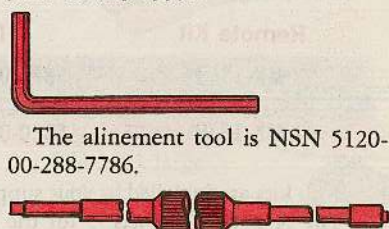


GOTTA FIND THOSE SPECIAL TOOLS... AND THAT'S SNOW JOKE!



Tired of tracking the elusive alignment tools that should be attached to the rear panel of your R-390A/URR radio receiver?

The fluted socket wrench is NSN 5120-00-223-6995.



Commo Talk



When you're getting your forms and records together, make sure you catch the need for a DA Form 2408-14 on all your commo and electronics equipment—Equipment Category Code (ECC) J gear except lasers (JL) and COMSEC (JB).

[illegible]

Change 2 E-1

That DA Form 2408-14 is the only form required on your commo and electronic equipment now.

You need a DA Form 2408-14, though, only on the end item of commo or electronic gear issued to you. In other words, if you are issued an AN/GRC-142, one DA Form 2408-14 covers that set and its components.

If you're issued just an AN/GRC-106, you need a DA Form 2408-14 on that set. But you do not need a separate DA Form 2408-14 on the AN/GRC-106 that is a component of the AN/GRC-142.

Course, if your equipment doesn't have a secondary ECC code under J—in Table A-20—you do not need a DA 2408-14 at all.

The DA Form 2408-14 required on your commo gear covers that gear only. You still keep separate forms on any vehicles and trailers carrying that equipment.

AHH—THAT
TAKES CARE OF
THESE CRACKS
FOR NOW...

OK...BUT HOW 'BOUT
PERMANENT FIXES? THAT
WON'T KEEP WATER OUT
O' TH' HONEYCOMB
FOREVER, Y'KNOW!

Keeping water out of the honeycomb panels on your expandable and multi-purpose shelters is a m-u-s-t!

Para 4-50, TM 10-5410-221-14/1 (Sep 76) has the poop on fixing small holes, tears 'n' cracks in the aluminum-faced foam filled honeycomb panels. Water-soaked honeycomb panels come apart.

You should repair any damaged area in the exterior walls, top or floor of the shelter as soon as possible to keep water away from the honeycomb.

If you have to wait a short spell before you can fix a hole permanently, use strips of 2-in wide masking tape NSN 7510-00-266-6715 to patch the panels. Don't rely on this temporary fix with the tape to keep water out of the honeycomb forever. Repair the spot with repair parts kit NSN 5410-01-057-9912 as soon as you can schedule it.

Focus your PM peepers on the outside wall area near the leveling jacks. This's where you're most likely to have damage. Any sign of the

supports coming loose from the walls and you use the tape pronto.

Keep each jack assembly fully retracted —up position—during transport or storage. This will help stop damage to the panels.

But no matter where or when you find a crack, tear or hole in the shelter, make a big PM effort to keep water out of the honeycomb panels.

IT'LL
PAY OFF IN
PREVENTING
DOWNTIME
AND COSTLY
REPAIRS!

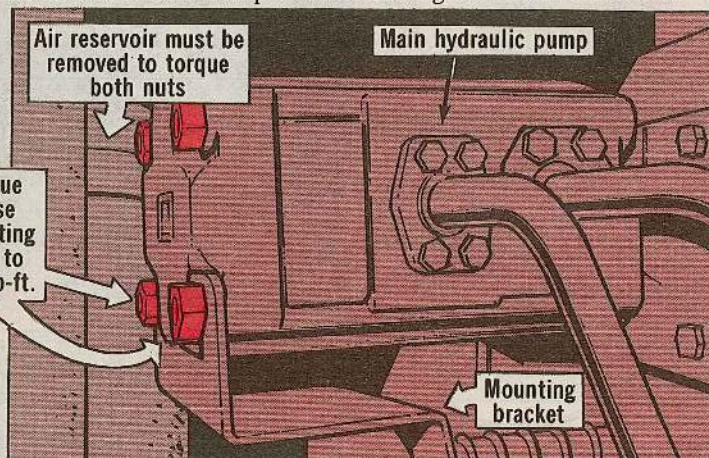
ONLY
ONCE?

YES!

Once is enough! That's right. Mechanics should make a one-time inspection for loose nuts on the main hydraulic pump of the CCE Grove Model TMS 300-5, 25-ton Crane.

Some mounting nuts that hold the pump drive, engage-disengage cable-mounting bracket to the inboard pump have been torqued only finger-tight! That's about 180 lb-ft shy!

You could wind up with oil leaks, pump damage and ruined seals. Check those nuts now with a torque wrench and tighten them to 200 lb-ft.



Capacitor Fix OKed

A BUNCH OF BUM CAPACITORS GOT INTO THE SYSTEM IN IGNITION REPAIR KIT NSN 2920-00-225-4841...

1 Use a new capacitor NSN 5910-00-795-9655. (You may have one on hand. It's part of Ignition Repair Kit 2920-00-575-3504).

2 Remove the old capacitor.

3 Cut off the lead wire at the back of the capacitor.

Bum capacitor
PN 13212E3762-2

New capacitor
NSN 5910-00-795-9655

4 Peel back the insulation about $\frac{1}{4}$ inch, strip the 16 awg wire, and add a wire terminal...just like the terminal at the other end of the capacitor lead wire.

Capacitor lead wire modified



THANKS,
BONNIE...
CONNIE...
YOU'RE
TRUE
FRIENDS!

5 Pull enough of the wire lead thru the capacitor mounting hole so it will reach the top center screw of the new capacitor.

6 Put in the new capacitor.

7 Connect the lead wire and the brass conducting bar to the capacitor's top center screw.

8 Adjust breaker points and ignition timing.

Winch Cable Repair Parts



Clamp your peepers on these repair part NSN's for the 200-ft long winch cable assembly—NSN 4010-00-426-7332—that goes on your D7F Caterpillar dozer.

Add 'em as components of FSCM 11083 PN 3R3326, Item 5, Fig 14, TM 5-2410-233-20P (Mar 72).

Item	NSN	Reqd
1 Rope, wire, 1-in	4010-00-269-9314	
2 Ferrule, wire rope	4030-00-171-4107	1
3 Thimble, wire rope	4030-00-266-0071	1
4 Clamp, wire rope	4030-00-243-4448	4
5 Hook, hoist	4030-00-163-0805	1

KNOW AND OBEY
SAFETY RULES WHEN
WORKING WITH WIRE
ROPE-- IT CAN
KILL!



Use SMR—Source, Maintenance, and Recoverability—code PAOZZ. This authorizes organizational level mechanics to replace one of these busted or missing parts.

Hold one, tho. If the wire on the assembly goes kaput, think about getting a whole new winch cable assembly. You'll save about \$350 by buying an assembly rather than a 600-ft roll of wire rope.

Course, if you can use the extra rope on other winch assemblies, get the roll of wire rope.

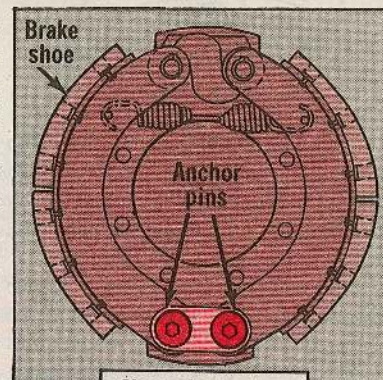
Use Appendix A, CTA 50-970 as your authority to get all these items except the winch cable assembly. Your authority for the assembly is TM 5-2410-233-20P.

40 Tons of PM



Forgetting to exercise the brake system regular-like on your 40-ton M870 Lowbed Semitrailer when it's not used can give you a bad case of maintenance heartburn.

If you "set it and forget it," you'll find the brake shoes frozen to the anchor pins when you need it for a hauling job. Pulling the maintenance brake system check—Part II, TM 5-2330-360-14 (Mar 76)—at least every 30 days when you're not using the trailer should keep the brakes in good shape.

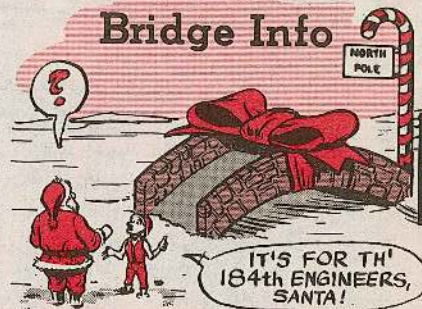


Shoes freeze here

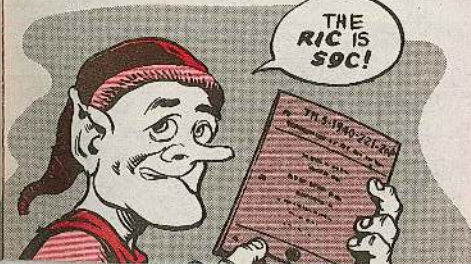
Bridge Boat Correction

NSN 3030-00-017-9733 gets a matched set of V-belts for the generator on your 27-ft bridge erection boat Model HICE-27D. Make Note in your TM 5-1940-221-20P (Apr 73) Fig 21, Item 14.

Ribbon Bridge Info



The NSN for the winch cable on page 2-19 of TM 5-5420-209-20P (Feb 76) is 4010-01-064-2623.



On the AMDF...

Acquiring More Info

Sharp PLL types know the Army Master Data File (AMDF) carries gobs of good info in those long columns of codes.

THE TRICK IS
TO FIND THE CODE
AND DECODE
IT...

Sure, you know how to check the NSN, unit of issue (UI), price, noun and phrase code (PC). But are you overlooking a very special code, the AAC?

The AAC—Acquisition Advice Code—tells you which items come through local purchase, which ones have a l-o-o-n-g request waiting time, which items you make and so on.

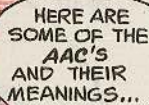


USACDA Pam 18-1, Code Reference Guide for the ARMS Monthly AMDF, says the AAC...indicates how and under what restrictions an item will be acquired. Mostly that code clues your supporting levels in on special codes required. But you can save yourself a lot of hassle if you check that code yourself—and know what it tells you.

IF YOU'RE MISSING
A COPY OF CDA PAM 18-1,
ORDER ONE FROM...

USA DARCOM Catalog Data Activity
ATTN: DRXCA-M
New Cumberland Army Depot
New Cumberland, PA 17070.





➔ Not subject to special controls. The item is DOD - managed, stocked and issued. Bingo! Your request should sail through with a fund citation.

➔ Fabricate or assemble or obtain items—with an SMR source code of X2—from cannibalization. Check the nomenclature column or the TM for the items you need to make or assemble it. If you cannot make or cannibalize the item, order by NSN—but add Advice Code 2A to your request. You can expect to wait a while on the item.

➔ GSA managed item.

➔ Not stocked, centrally procured. If you need this item, be prepared for a lo-o-o-ng wait. They'll only try to buy this item after your request gets to the top level manager.

➔ **Local purchase.** Your installation supply support buys this item for you.

➔ Major overhaul item. You can order this item only if your unit is authorized to perform major overhaul. Normally the item cannot be ordered below depot level.

➔ **Condemned.** Item no longer authorized for procurement, issue, use or requisitioning. If you need this one, you're out of luck. Check the phrase code and nomenclature column for a replacement or substitute NSN.

➔ **Terminal item.** Some stocks are still available, but future buys are not authorized. When stocks are gone, forget it. Check the phrase code and nomenclature column for a replacement.

➔ Terminal item (follow-up to V).
Stocks are exhausted (gone). Find a substitute.

Other codes restrict who can order an item or tell you if special codes or authorizations are needed.

'Course, no matter what the AAC is, if you must have that item, that's all there is to it. Just make sure you really do need that item—and that item alone!

If the item's coded as not available or with a long lead time on the request, check the phrase code (PC) and nomenclature column for a substitute.

NO
LUCK?

CHECK WITH
YOUR SUPPORT!

THEY HAVE OTHER
SOURCES OF INFO-
INCLUDING OTHER
MICRO-FICHE FILES-
THAT MAY HELP'

[illegible]

Watch it, tho! The AMDF is not perfect. A bunch of items have the wrong AAC. For example, some organizational level tools in TM 9-2320-209-20P carry an AAC of M (major overhaul item) on the AMDF. That's not only wrong, it's dead wrong! Organizational level items should never be coded M.

When you find a real goof-up like that, shoot off a letter, DF or DA Form 2028 to the agency and address listed for the code in the first place of that item's MAT CAT code on the AMDF. CDA Pam 18-1 lists the agencies and their addresses under that code.

ALWAYS
SEND
AN INFO
COPY
TO...

USA DARCOM Catalog Data Activity
ATTN: DRXCA-DS
New Cumberland Army Depot
New Cumberland, PA 17070

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A FEW ITEMS MAY HAVE A BLANK MAT CAT CODE! FIRE OFF YOUR PAPER ON THAT TO THE CDA!

PS **END**

HERE ARE SOME PRESENTS FOR ALL YOU MAINTENANCE TYPES!...

HAPPY HOLIDAYS!

Relax on Holidays

Forget about marking out weekends and holidays when you're scheduling maintenance on your DD Forms 314. That's just extra work for you. The 10-percent variance TM 38-750 gives you usually takes care of any extra days you need when a service falls on a weekend or holiday.

2028 Turn-Around Time

Get the feeling your DA Forms 2028 on pubs errors and changes fall into a hole somewhere? Well, hold onto your patience. Most agencies are allowed 45 calendar days to research and reply to your requests. Give 'em the full time—plus mailing time both ways—before you start fuming. And, keep those forms going.

A Promotion Boost

You thinking about the NCO Logistics Program (NCOLP)—but need a little extra push? Try this for size: On the latest promotion list to E7, the Army-wide selection rate was 31.4 percent in the primary zone—but NCOLP members had an 89.3 percent selection rate! Secondary zone selections were even better. You interested now? Read Chapter 13 of AR 614-200 for more info or call SFC Morrow at MILPERCEN on AUTOVON 221-8026/8027.

Connie's
Mini Minis

SANTA -- RUDOLPH'S GOT A MAINTENANCE PROBLEM!!

HE'S GOT A COLD AN' HIS NOSE WON'T GLOW!

C-12 Engine Sampling

The word in TSARCOM Msg DRSTS-MEA (2) 211300Z Sep 79 says to put your PT6A-38 engines in the oil analysis program. Send your samples to the lab listed in Sect VI of TB 43-0106 (Jul 78), which is being updated with additional PT6A-38 sampling details.

Keep 'em Flying!

The 1800-hr time-between-overhaul for the T53-L-13B engine in your Huey and Cobra has been removed, according to TSARCOM Msg DRSTS-MEP(2) 071345Z Jun 79. The engine is now a condition item so keep it in service as long as it measures up.

Strap Cutter Handle Fix

Before you use your strap cutter, NSN 5110-01-004-3869, put a 12-in piece of 1½-in steel pipe over the handle. Then you can be far enough from the cutter so you won't be hit by a flying strap.

5-Ton Steering Trouble!

You may be in for steering trouble with your TM-211-series 5-ton truck—like pitman arm failure—if you've got the wrong power steering setup.

There're several different power steering pumps for these trucks, but one of 'em must be installed with a special modification kit. Some of 'em are not, and they allow too much pressure.

Check yours right now! You get the info on pump pressure testing in TARCOM Msg DRSTA-M(NMP) 041743Z Oct 79 and TARCOM Msg DRSTA-M(NMP) 231908Z Oct 79.

You use Test Set, power steering, NSN 4910-00-627-7043, page 3-1, TM 9-2320-211-20P (May 73), along with the instructions in para 2-213.1, TM 9-2320-211-20 (Jun 73).

Generator Operators

That \$144 universal voltage regulator—NSN 6110-00-764-7621—for your 3-KW Model MEP-016A, -021A, -026A; 5-KW MEP-017A, -022A and 10-KW MEP-018A, -023A generator sets is now a repairable item. Turn it back in to support when it fails. They will test and repair it—more'n likely by replacing a blown one-buck power transistor.

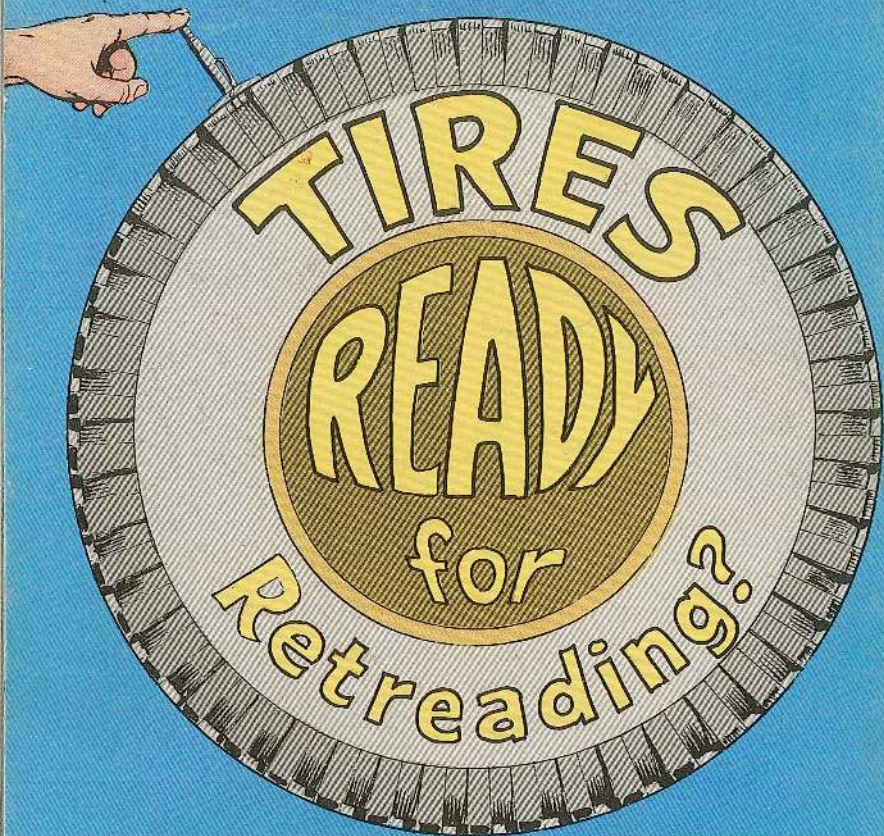
B99 Chain Not Tested

You needn't load test B11 chains. They're specifically exempt under the Note in Para 3 a of TB 43-0142 (Apr 79). B11 chains are considered towing equipment, meant to pull loads or secure 'em, not lift 'em.

M113A1 Carrier Oil Line

The NSN for the oil line listed on page 7 of TM 9-2300-257-20P as item 10 in Fig 3 is wrong. The right one is NSN 4720-00-905-9076.

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



GAGE 'EM!

Use:

TIRE DEPTH GAGE
NSN 5210-00-019-3050

Check:

TM 9-2610-201-14 (Aug 75)
TM 9-2610-200-20 (Feb 77)

This handy gage is in your
No. 1 and No. 2 Common Tool Sets.