
Issue 245
P.S
1973 Series
April
THE PREVENTIVE MAINTENANCE MONTHLY
TIME FOR A CHANGE THIS SPRING
RIGHT ON, DOLL.
SPRING CHANGE-OVER
VISIT SUNNY VELMIA
MOTOR PARK 1 KILOMETER

PUBLICATIONS ARE MAINTENANCE TOOLS, TOO!

You don't have to look hard to find Army equipment operators and maintenance-types who're really interested in keeping their equipment in good shape. You don't if you're on the receiving end of a steady stream of questions about maintenance.

Half-Mast and his crew of helpers run into these guys out in the field and hear from 'em by mail and phone—every day.

One big fact: Any guy who makes the effort to ask a question on maintenance has to be interested in his equipment. Right? And lots of times he's asking for a batch of other guys, too.

But one disturbing thing is real plain:

The answers to most questions are already in the manuals that these guys are supposed to have right at their fingertips.

So, you begin to see that some people create their own maintenance problems. They either don't have the manuals they need, or they've got old, superseded or rescinded TM's, LO's, TB's, etc. They don't keep their pubs up to date with the current changes.

Publications—current and complete—are as necessary as any other tools. With the right publications in the hands of interested men, a unit will have fewer maintenance problems.

How do your equipment publications stack up?

DEAR CONNIE OR BONNIE: I would like PS Magazine to run an article about (describe your organizational maintence problem):

_____

_____

_____

_____

_____

_____

_____

_____

I am in ___ CONUS; ___ Pacific Area; ___ Europe; Other ___

Want a reply?
Give us your name and address:

Tear this card out and tell me what you want to see in PS.

...ation of organizational ...made through normal ...ssues may be obtained ... Magazine, Fort Knox.

...73

...f Half-Mast, Magazine, ...t Knox, Ky. 40121

...roved by Headquarters.

...mitted on DA Form 12-4.

GROUND MOBILITY

COMBAT SUPPORT

COMMUNICATIONS

AIR MOBILITY

FIREPOWER

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OFFICIAL BUSINESS

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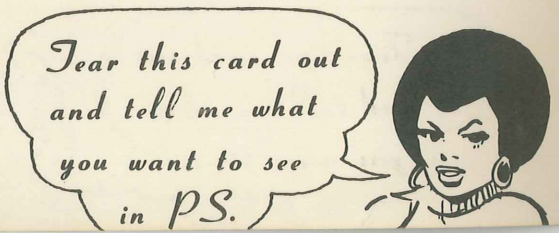
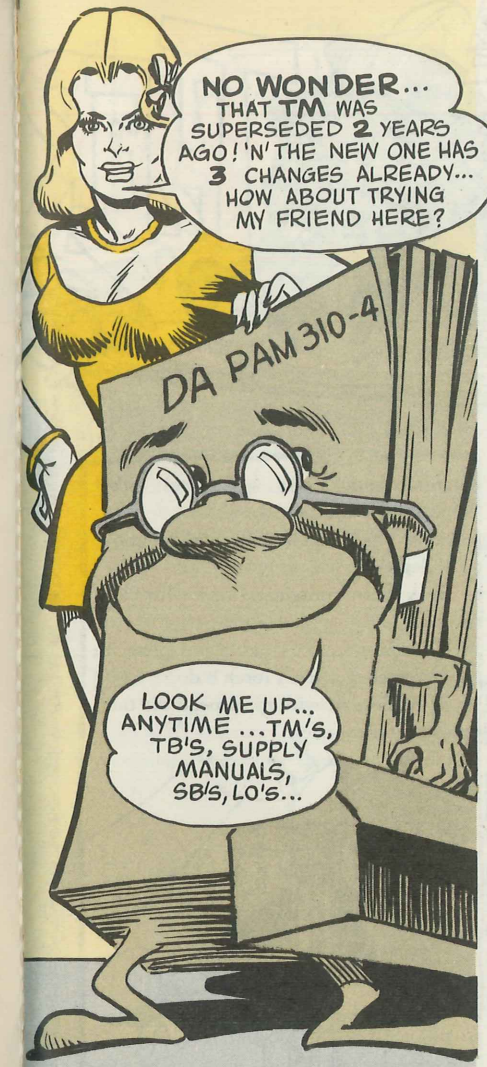




To begin with, do you have the big index, DA Pamphlet 310-4 (Jun 72)? It's the index to TM's, TB's, supply manuals, SB's and LO's.

Do you use it?

PS THE PREVENTIVE MAINTENANCE MONTHLY

Published by the Department of the Army for the information of organizational maintenance and supply personnel. Distribution is made through normal publication channels. Within limits of availability, older issues may be obtained direct from U.S. Army Maintenance Board. Attn: PS Magazine, Fort Knox, Kentucky 40121.

ISSUE No. 245 APRIL 1973

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,
Fort Knox, Ky.
40121

Use of funds for printing of this publication, has been approved by Headquarters, Department of the Army, 11 April 1972.

DISTRIBUTION: In accordance with requirements submitted on DA Form 12-4.

THERMOSTAT TESTING

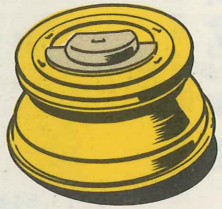
When's the best time to check the thermostat in your vehicle's cooling system? Normally:

—Whenever the cooling system's serviced.

—When you replace antifreeze.

—Anytime the temperature gage continues to give you high or low readings.

Your vehicle may have a bi-metallic spring type or a bellows type thermostat.



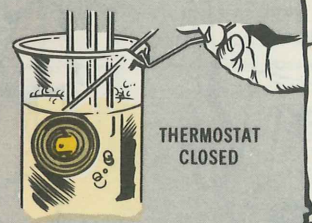
Here's a quick, easy way to test either type. You'll need:

1. A thermometer that reads above 220 degrees.
2. A clean container filled with clean water.
3. A heat source—like a hot plate. In an emergency a small torch'll do.
4. A piece of wire to suspend the thermostat in the water.

Stir the water so it heats evenly. Thread the wire through the thermostat and lower it into the container. Take care the stat doesn't touch the container or the thermometer. Keep the thermometer from resting on the container.

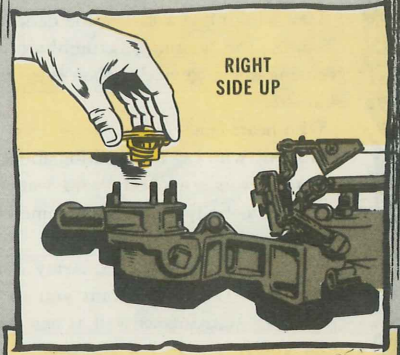
Heat the water till the thermometer reads a few degrees above the temperature opening stamped on the stat. By that time the stat should be wide open.

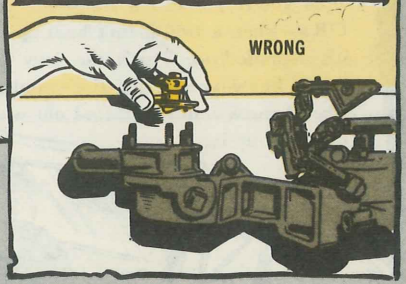
Then, place the thermostat in water that's 20 degrees cooler than its rated opening. The valve should close all the way.



If the stat fails either test, it's had it. Replace it with one of the same type and same rating.

And remember, the stat has a right-side up. That is, its spring or bellows end sits inside the thermostat housing. Its valve end goes up (or out). Some stats have a stamped installation guide.





For more scoop on care and use of your vehicle's thermostat see your vehicle's -20 TM.

See also TM 750-254 (Mar 72), Cooling Systems: Tactical Vehicles. But you can forget about the thermostat tester in this TM's pages 2-2 and 2-4. It's not in the supply system.

Like winking at a girl in the dark.

That's the griping, grumbling and grousing some guys do when they get a bum tire.

Who hears 'em?

Nobody who can do anything about it.

But there is somebody who wants to know—somebody who can do something about it.

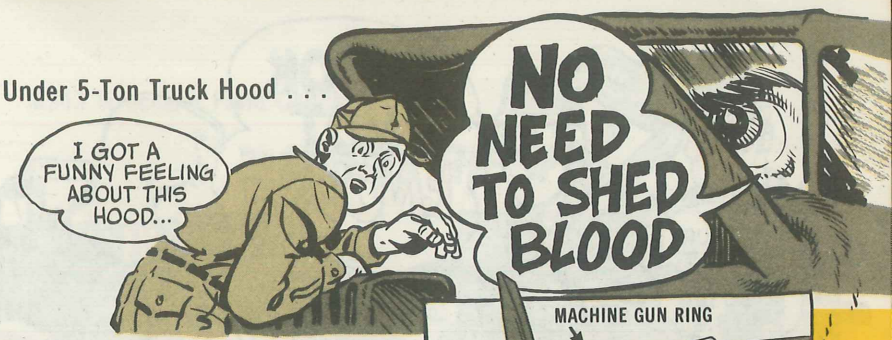
Those people at the U.S. Army Tank-Automotive Command want you to get good tires—retreads as well as new tires.

So you've got to tell 'em—with your EIR's—when a tire doesn't hold up like it's supposed to. That's the only way they'll know you've got tire problems. They'll check into it and find out where the screw-up is.

They need all the dope you can give 'em. TB 750-981-4 (Oct 72) tells you exactly what details they want on your DA Form 2407.

Another big help in explaining what's wrong with your tires is the poop in TM 9-2610-200-20 (Jan 71), on organizational maintenance of tires.

Under 5-Ton Truck Hood . . .



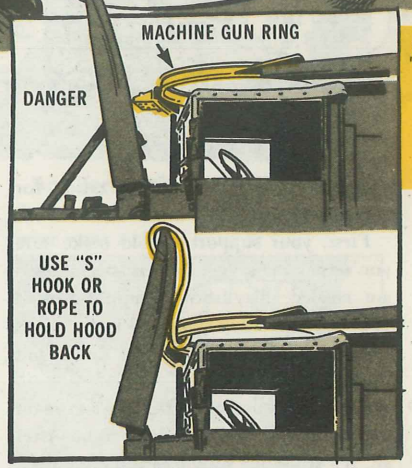
That heavy hood on your cargo truck is a double danger if you have a machine gun ring on the right side.

The hood won't go back far enough for the standard safety catches to work—and that can turn that hood into a dandy guillotine. All it needs is a push from a good gust of wind. It's fast and deadly.

Here're 2 ways you can insure yourself—and be sure you use at least one of 'em:

1. Tie that hood with a heavy piece (½-inch or larger size) of rope looped into the mount itself and on around the hood. If you don't have a piece of rope, use the passenger safety strap from across the rear.

2. Make a hefty "S" hook out of a 3-ft piece of 1-in or ¼-in strap iron. Hook one end under the ring and the other over the hood lip.



Keep the hook handy to use every time you make your PM check.

Never, never work under the hood without such a back-up safety gadget—replacement necks, heads, and such are hard to get these days.

U-JOINT KIT AVE

Why replace when you can repair?

Like those U-joints on your M715 1¼-ton truck's winch prop shafts.

There's a kit for repairing those U-joints. It comes under FSN 2520-917-0781, listed on page 266 in your TM 9-2320-244-20P (Nov 71).

Some guys have been putting in new U-joints instead of fixing 'em—to the tune of nearly 30 bucks for all 3.

The U-joint repair kit costs less than 4 bills—or about 10 smackers to repair all 3 U-joints.

Get it?

Then get it—the kit.

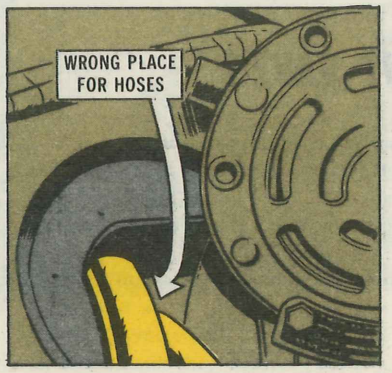
It takes more than authorization for you to do a DS job.

First, your support should make sure you've got the savvy. And, if special tools are needed, they should supply 'em to you. Then, if there're special instructions —like in a DS-level TM—they should put 'em in your hands.

Finally, it's up to DS to keep an eye on the job to make sure it's done right. After all, it's still your support's responsibility, even though they let you do the work.

So what's the big flap?

Things like butchered M151A1 ¼-ton trucks, that's what.

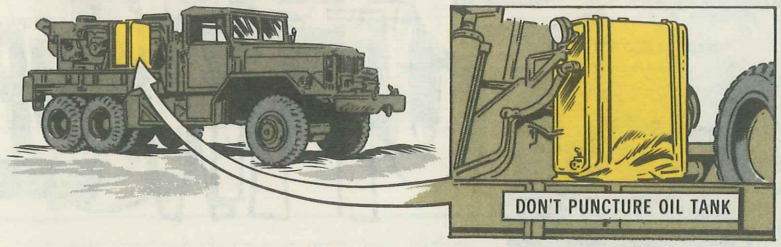


They look like a pickaxe was used to install the hot water heater kits. The butchers didn't know about—or didn't pay close attention to—the instructions in TM 9-2320-218-34 (Jan 72).

If you've got authorization to do a DS job, make sure you've also got the know-how, the tools and any detailed instructions needed.

M543 Wrecker's Field Chocks . . .

X MARKS THE SPOT



You've got no choice when stowing your M543 wrecker's field chocks but to put 'em into the compartment next to the crane's hydraulic oil tank.

They gotta go there exactly right, too.

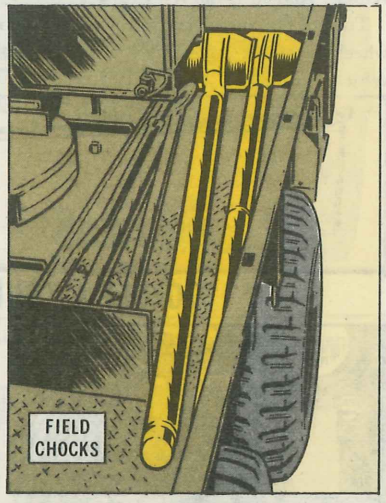
The ground spades must be all the way up forward, one partly behind but under the tank.

In this one and only spot they won't dent, scrape or puncture the oil tank or block the boom as you swing it from left to right. See stowage locations in Ch 3 (Jan 65) to TM 9-2320-211-10.

A few inches one way or another will spell D-A-M-A-G-E to the oil tank. Don't put 'em in backwards and don't place one on top of the other.

Always make sure the spades are out of the way before you operate the boom. Rough terrain or a big bump could have moved 'em.

And for Pete's sake and yours, stand clear from any operating boom. You'd never want a chock flung at you.



GET YOUR PM POSTERS

The Army is cranking up a series of monthly posters on Preventive Maintenance. You can get yours automatically on pin-point by making sure your unit has **Posters** ordered in Block 9 of DA Form 12-4. The first poster will be printed in April 1973.

YOUR ALINEMENT GAGE...

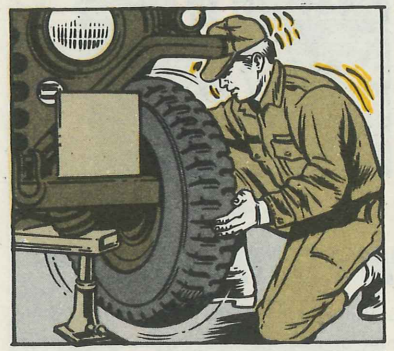
PUTTING UP A GOOD FRONT

Shimmy is great on a grass skirt under the island moon—but it's strictly No. 10 on a vehicle. And so is uneven tire wear.

To spot the causes, reach in your No. 1 or No. 2 Common tool set and pull out your wheel alinement gage, FSN 5210-529-1205. With it you're ready to check out the vehicle's front end.

WHEEL ALINEMENT GAGE--FSN 5210-529-1205

TO GET A TRUE READING. . .

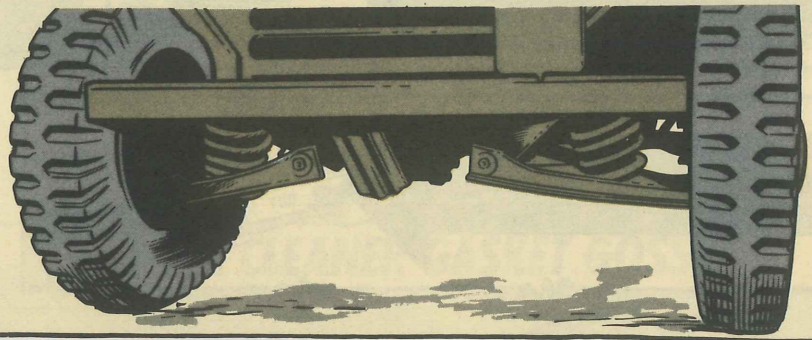


Be sure wheel bearings are adjusted right.

Check tires for proper pressure.

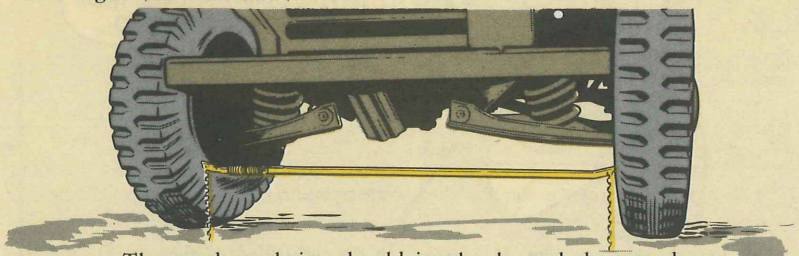
Eye your wheels. A crooked rim or a tire mounted crooked will give you bum answers.

Get your vehicle on a smooth, level surface. . . Turn wheels straight ahead.



TO CHECK. . .

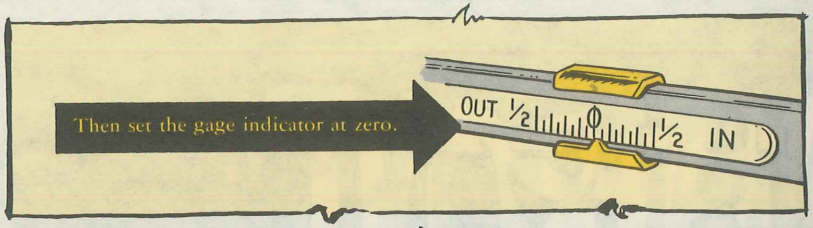
Place your gage ahead of the axle. Have the tips against the sidewalls where the tread begins (that's the felloe).

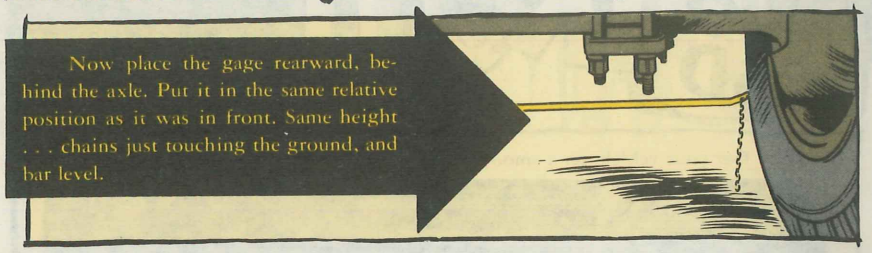


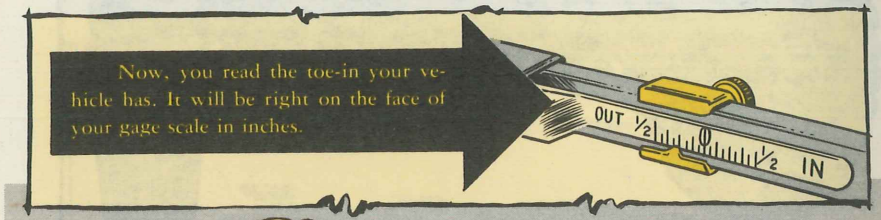
The pendant chains should just barely touch the ground.

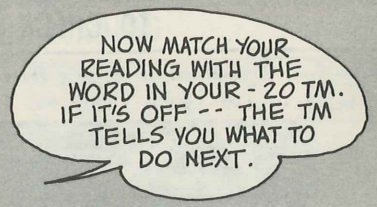
Stand back and look again: see that your bar's level and has the same position each wheel.

PS MORE

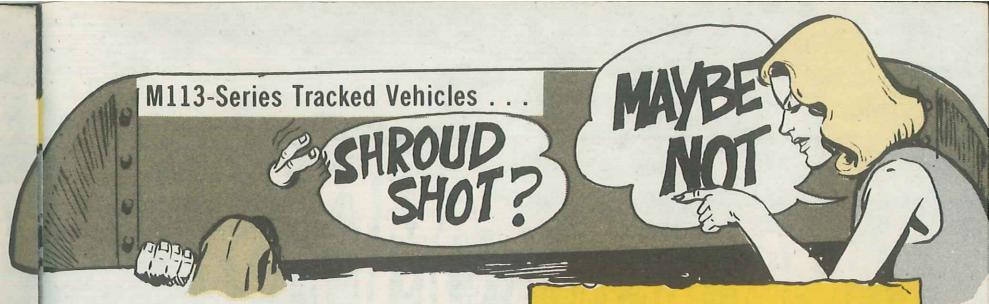








On lighter vehicles, like M151A2's, you can put the gage on in front, set it to zero and then roll the vehicle by hand—push, that is—until the bar and chains are in the right place at the rear. On bigger vehicles, remove it and replace at the rear position by hand. Usually your -20 TM will tell you which method to use.



You may be throwing away about 35 bucks when you toss out that rubber track shroud for your M113A1 PC—or other vehicle in that family.

It can be fixed if it's not torn up too bad.

These shrouds control the flow of water over the tracks when you're swimming. As long as they're in good enough shape to do their job, keep 'em.

Small cuts, tears and gouges can be repaired like you'd fix an inner tube for a tire. Para 3-5 of TM 9-2610-200-20 (Jan 71), on tires and tubes has the info you need.

Try it—you'll like it.

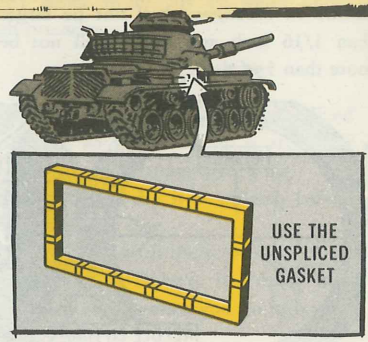
AIR CLEANER GASKET GOSSIP

When is a splice not nice?

When it's in the air cleaner outlet elbow gaskets of an M60-series tank.

A lot of these gaskets (FSN 2910-411-2059) were made with spliced corners. The gasket is likely to break at one of the corner splices and this can let in dirt, and grit that'll damage the engine.

New, one-piece gaskets without splices have been put in the supply system. Check your air outlet elbow gaskets (left and right sides) and if they're spliced, order new ones.



If supply sends you the old gaskets, keep ordering until you get the one-piece kind.

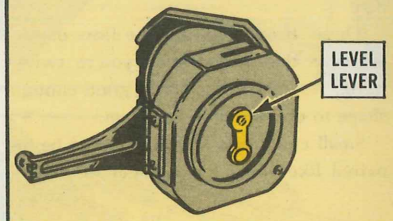
M2 MAGNETIC COMPASS

Does your M2 magnetic compass have you lost?

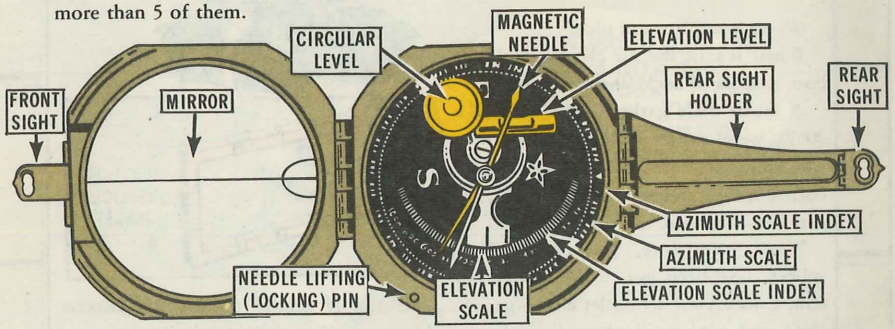
If any of these things is wrong, your compass is unserviceable. Turn it in and get a new one. It comes with case as FSN 1290-560-6596. The case alone is FSN 1290-654-5048.

Check it out this easy way.

COVER AND MIRROR—Friction of hinge must hold cover in any position from closed to 180° open. Blemishes on the mirror such as discolorations, stains, smears or smudges, shall not be larger than 1/16 inch and there shall not be more than 5 of them.



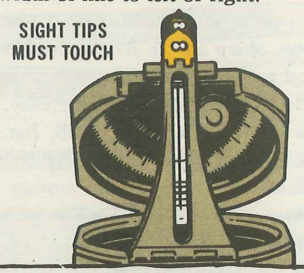
ANGLE OF SIGHT LEVEL LEVER—Must have enough friction to hold the elevation scale index at any given setting on the scale.



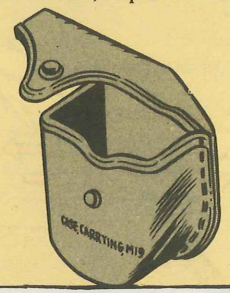
MAGNETIC NEEDLE—With needle lifting (locking) pin depressed so end is flush with compass body, gently shake compass. Needle must work right when compass is within 3° of level.

LEVELS—(Circular and elevation.) Broken, won't work. With the compass on a previously leveled surface, the circular level bubble must be inside the red circle within the width of the circle line.

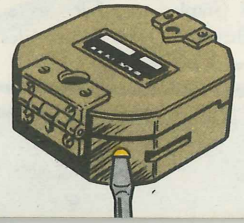
SIGHT ALINEMENT—Move cover to an angle of about 60°. Line up front and rear sights until their tips touch. Now move tip of rear sight along the etched line of the mirror. Misalinement between tip and edged line must not be more than width of line to left or right.



M19 CARRYING CASE—Snap button does not secure flap, loop missing, not secured by rivets. If KEEPER W/SLIDE, FSN 5340-753-5580, does not properly hold case on belt, requisition a new one.



AZIMUTH SCALE ADJUSTER—Using a screwdriver, rotate azimuth scale adjuster, first in one direction and then in the other. If scale moves more than 800 mils in either direction, the stops are defective. Scale must not bind or be too loose.



CLEANING PRECAUTIONS

In cold weather never breathe on the glass. This may even break the glass.

You never use polishing liquids, pastes or abrasives for polishing the window or mirror. Use only clean lens paper to get the dust off.

Alcohol and lens tissue will help you get fingerprints, oil or grease from the glass.

The compass is sealed to protect it against moisture, dust and variations in atmospheric conditions. However, it won't resist steam, air or water under high pressure.

HANDLING HINTS

Your M2 compass is not ruggedized equipment so if you thump it around it won't give you accurate directions.

If it gets wet, dry it completely before putting it in its case.

Never tinker with the screws.

In extreme cold leave it outside in a snow-tight locker when you go into your shelter.

If you're in a dusty, sandy area you have to be extra careful when you clean your compass so's not to scratch the mirror.

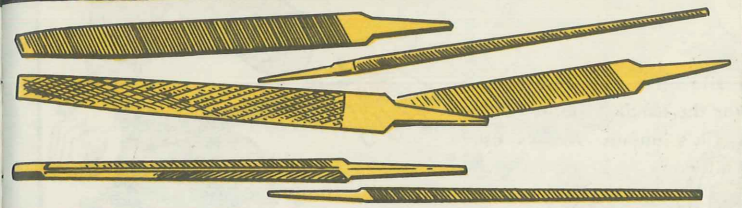
The dope on operation is in TM 9-1290-333-15 (Nov 63).

COMBAT SUPPORT

FILES ON PARADE... PM KEEPS 'EM SHARP

When you need a file you need one that's clean, sharp and in A-1 shape. No other kind will do a good job.

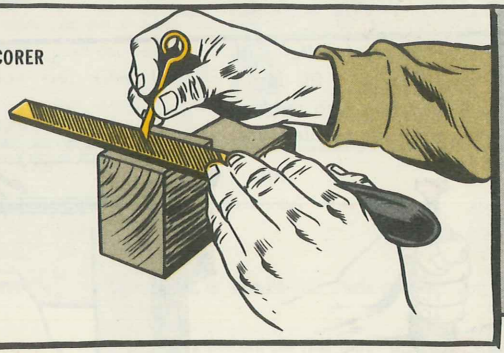
How do you keep files that way? Easy. Just give all files (large or small, flat, round, half-round, square, or triangular) careful handling, cleaning and storage.

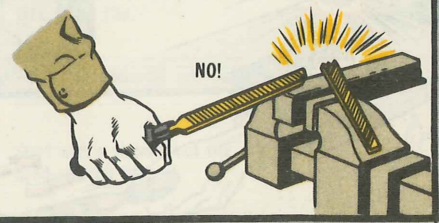


Like always:

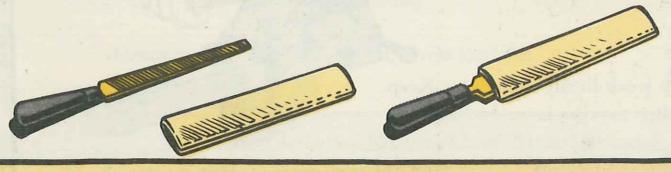
1. Keep files clean and dry.
2. Clean them with a file brush cleaner and scorer (FSN 7920-224-7987). Never tap a clogged file on your vise.
3. Never file with a clogged file. Clean your work piece before filing.

4. Never use lube or rust preventive compound on files.

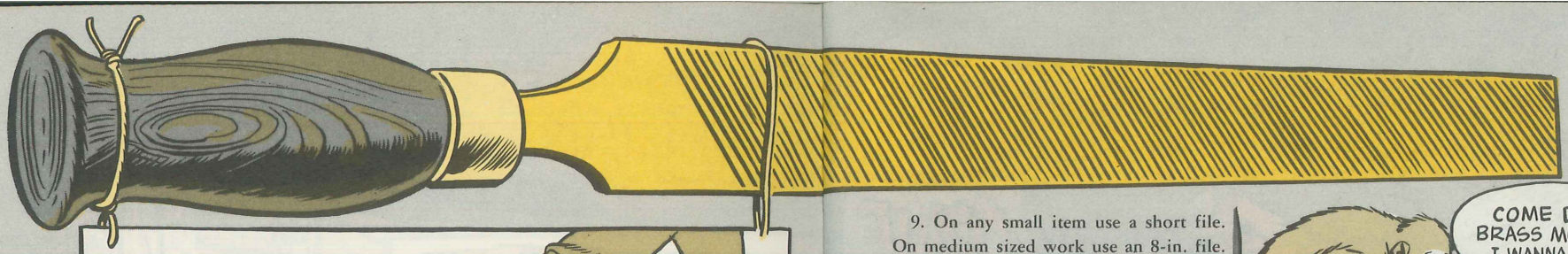




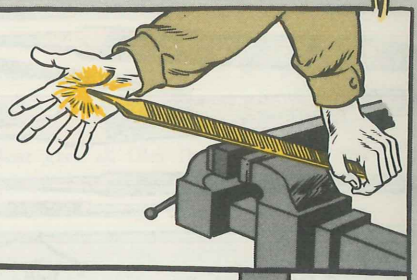
5. Store files in separate holders, slots in wood blocks, etc. Canvas or light cardboard (stapled together) make good file shields. Never toss naked files into tool box with other tools.



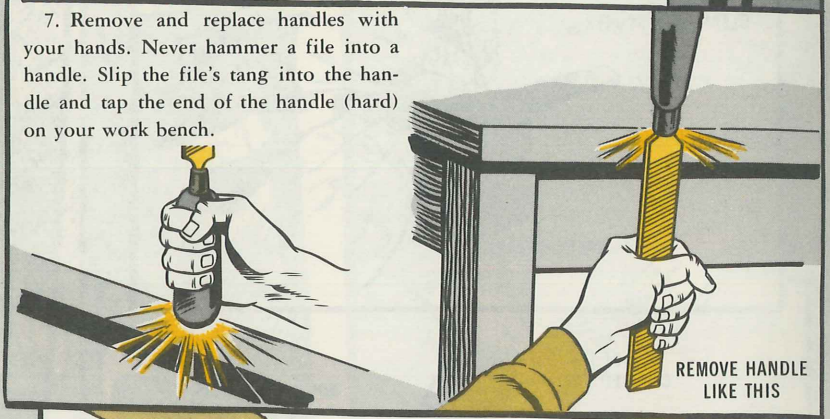
P.S MORE

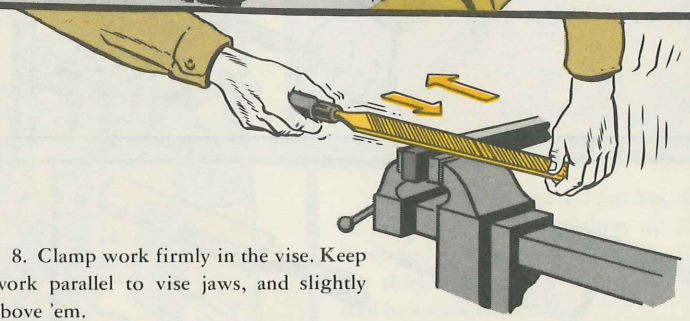


6. If a file's cracked gouged or chipped—or the handle is loose or damaged—the file's unsafe. Always use a handle on a file.



7. Remove and replace handles with your hands. Never hammer a file into a handle. Slip the file's tang into the handle and tap the end of the handle (hard) on your work bench.





8. Clamp work firmly in the vise. Keep work parallel to vise jaws, and slightly above 'em.

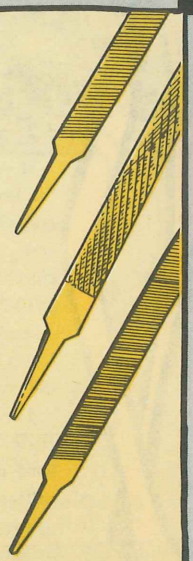
9. On any small item use a short file. On medium sized work use an 8-in. file. For larger work use the size you can handle best.

10. Break in a new file on brass, bronze or smooth iron. Never use it first on fins or scales on cast iron, or on a skinny edge (like sheet metal). That'll shear the teeth points.

11. Use light pressure on a new file. Never force it. That'll ruin the teeth.

Above all—know your files. Use the right file for the right job. For example:

FOR	TOOL
Heavy, rough cutting	Large, coarse, double-cut file is best.
Finishing cut	Second-cut, or smooth-cut, single-cut file.
Cast iron	Start with a bastard-cut file, finish with a second-cut file.
Soft metal	Start with a second-cut file, finish with a smooth-cut file.
Hard steel	Start with a smooth-cut file, finish with a dead-smooth file.
Bronze, brass	Start with a bastard-cut file, finish with a second-cut file.
Aluminum, lead, babbitt	Bastard-cut, curved tooth file.



See TM 9-243 (Sep 60), Use of Handtools and Measuring Tools, for more scoop on care and use of files and hand tools.

PS END

20-TON CRANE SHAFT SHORT

One good way to keep the swing clutch shaft on your 20-ton crane (Models 2380 and 2385) from binding is to operate the crane at least once every 2 weeks.

If your unit has more than one crane, use both of them. Like, alternate. An idle crane invites clutch shaft binding . . . and you can't cure it by adjusting the swing clutch bands, like in para 4-99 of TM 5-3810-232-12 (Sep 70).

Another good way to avoid trouble is to go easy on the grease on rollers under the crane's cab.

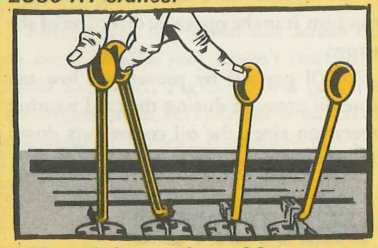
Too much grease makes the rollers slide. Sliding rollers make it twice as hard to move the crane . . . and sliding rollers wear something fierce.

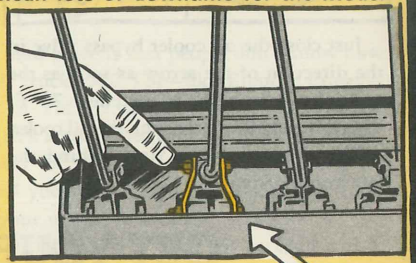
So, get a buddy to eyeball the rollers to be sure they're rolling. If they're not, wipe off excess grease until they do. Naturally, wipe the gook off with the crane stopped.

OUTRIGGER CONTROL RIGGING

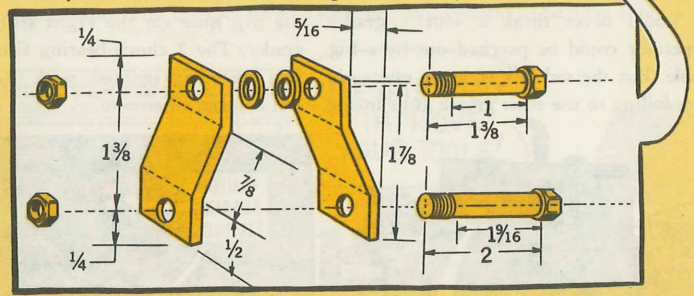
Dear Editor,

Bent or busted outrigger controls mean lots of downtime for the Model 2380 RT cranes.





My unit keeps those 20-tonners rolling with a simple field fix.



All you do is fabricate a support bracket for each control. That's all there is to it. Hope others can use this idea.

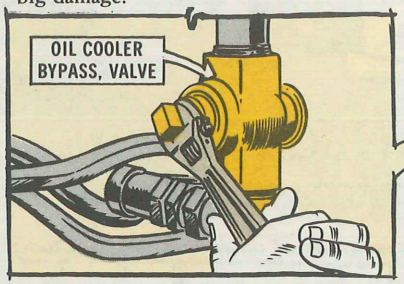
SP6 Eugenio Gaona
Fort Bragg, NC

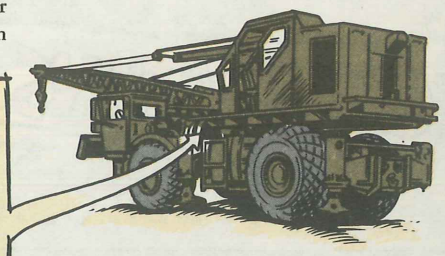
(Ed Note—Sounds A-OK as an interim fix till the newly designed valves get out to the users.

A TURN FOR THE BEST

You can bet your boots on it.

A twist of the wrist can save the carrier engine of the Model 2385 RT crane from big damage.





Just close the oil cooler bypass valve in the direction of the arrow as soon as the ambient temperature reaches 70° F. This'll divert the oil through the oil cooler.

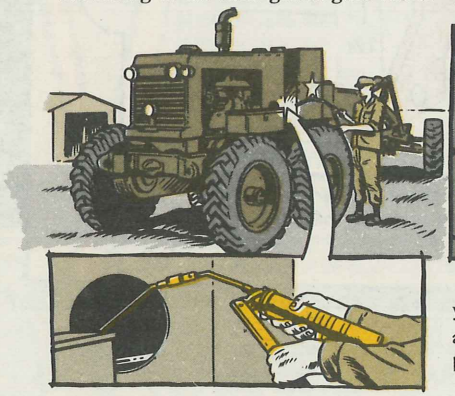
The bypass valve is right behind the left front outrigger.

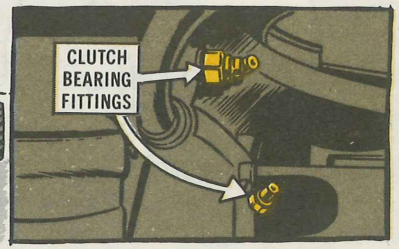
Now, remember, when ol' man winter comes back, you've got to open the oil cooler bypass valve again. At that time you turn it in the opposite direction of the arrow.

This'll pay off by preventing low engine oil pressure during the cold weather operation since the oil cooler cuts down the flow of oil.

GET YOUR BEARINGS

You'd never think a 440HA grader operator could be psyched out by a big hole. But the sad fact is, some operators are failing to use their grease guns inside the big hole on the right side of the grader. The 2 clutch-bearing fittings inside are being ignored, with frustration and damage all around.





Hit those fittings every 50 hours, like your LO says. Just a wiggle and a twist and you're home . . . and say goodbye to busted clutch assemblies.

NEED A BETTER TOOL?
SAY SO—ON 2028

Dear Half-Mast,

I'll bet the least used tool in the No. 2 Common Shop Equipment is Screen, headlight beam adjustment, FSN 4910-240-7529.

I believe that many more headlights would be adjusted—and adjusted right—if we had one of the modern commercial-type headlight aimers in place of that seldom-used screen.

What can I do about it?

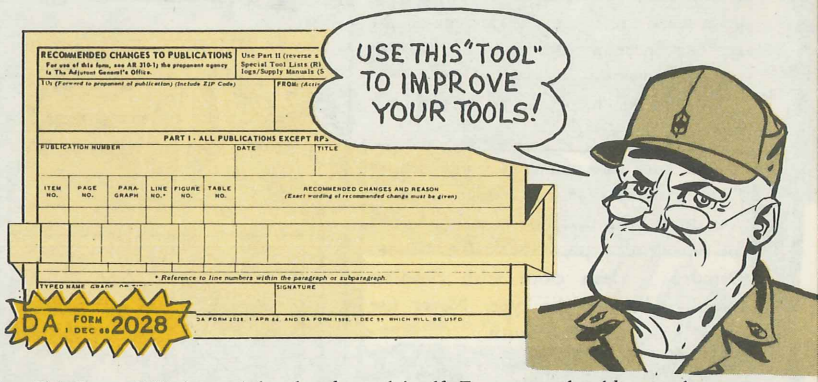
L. J. B.

Dear L. J. B.,

First, maybe the reason that screen isn't used more is that people don't know how to use it. Maybe they haven't cracked their truck's -20 TM—like flipping to pages 2-140 and 2-141, Fig 2-190 and para 2-85, of TM 9-2320-218-20 (Sep 71) to adjust headlights on an M151-series ¼-ton truck. (It's a good idea to make headlight checking—and adjustment, if needed—part of every "S" service.)

But, if you, and enough other guys, feel you need a better tool, there's a good chance the head shed will come around to your way of thinking.

So tell 'em—like it says in para 6, SC 4910-95-CL-A72 (Mar 69) w/Ch 1 and 2. Shoot a DA Form 2028 in to the U.S. Army Weapons Command, the tools people, and tell 'em what's wrong with the tool set and what you think ought to be done about it.



That DA Form 2028 is a mighty handy tool itself. Every guy should get to know it—and use it—on any tool set they think can be improved. AR 310-1 (Aug 71), para 1-27, tells about the 2028.

Half-Mast

OFFICE MACHINE PM

TYPEWRITERS

Your typewriter will hit and miss if that's the way you do your preventive maintenance—on a hit-or-miss basis.

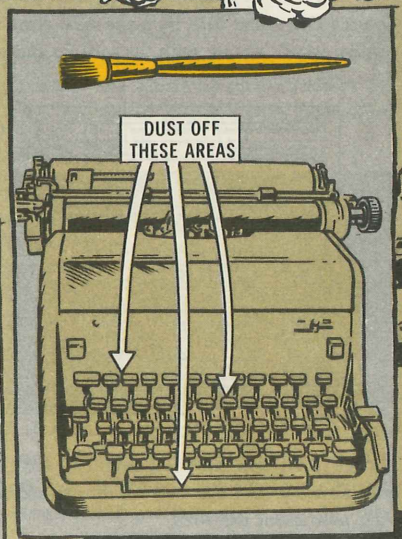
Takes only a few minutes a day to keep your typewriter in working order.

If you're not sure what you should do, this'll clue you:

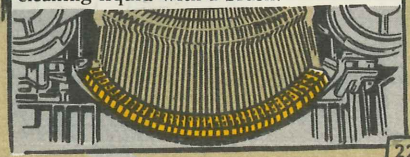
Cleaning

Use a long-handle dust brush, FSN 7510-550-8448, to dust the parts of your typewriter. Push down on the margin release lever and move the carriage to the right as far as possible and dust, then to the left and dust.

Dust the keyboard, space bar, and between the keys.



You can use plastic rubber cleaner FSN 7510-285-1745, to clean the type. If you don't have that, use cleaning liquid for typewriter type, FSN 7510-527-1458. Dampen a clean cloth with cleaning liquid and clean the type. Never use cleaning liquid with a brush.



Use a clean cloth to wipe all the exposed parts of your typewriter. That includes the cover plate, type bar guide, front and rear carriage rails, and front and back of paper table.

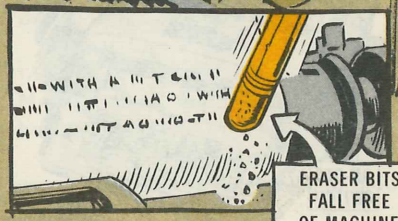
Wipe the platen (roller) with a cleaning and reconditioning compound, FSN 7510-286-6993. That will get the paper sizing off of the platen and your paper won't slip.

Clean the surface under the typewriter too.

Operation

Make sure that your typewriter's on a firm, level surface so that it'll not slide off when you're typing. If your typewriter's located on the typing well of your desk, make sure that it's bolted down so it won't be damaged if the well is accidentally closed.

When you're going to erase, move your typewriter carriage as far as it will go to the left or to the right so that the eraser shreds won't fall into your machine. If you don't, you may end up with sticking keys. Worse yet, it mixes with the oily substance on the type bars and will act as an abrasive.



P.S MORE

Inspection

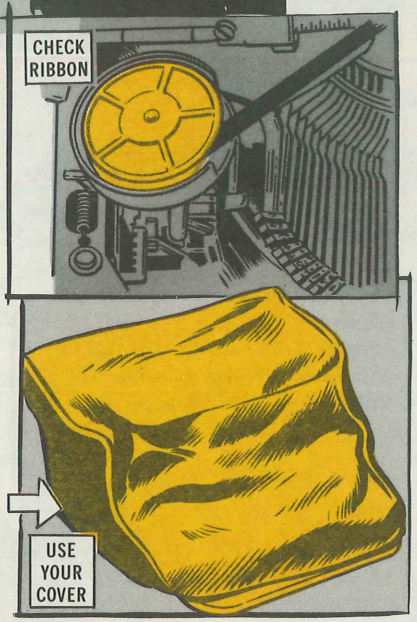
You should eagle-eye your machine to see if it has any loose, missing, or damaged parts. If it does, report it.

When you find parts that may have fallen off your machine, save them for the serviceman.

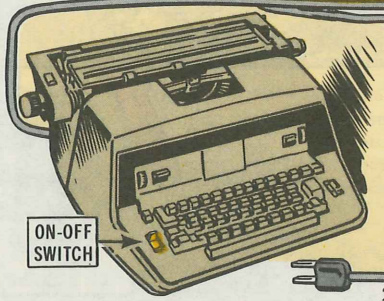
If your machine is sticking or binding, or some of the parts are not working, report it.

Check the ribbon to see if it needs replacing. If it does, replace it with a ribbon that's made for your machine. If that's not possible, and you have another ribbon which is the same size, you can wind the new ribbon on your old spool.

Your typewriter should have a dust cover. Check it to see if it has rips, tears or other damage. Always cover your typewriter with the dust cover at the close of your work day or when you're not going to use it for two hours or more.



ELECTRIC TYPEWRITERS

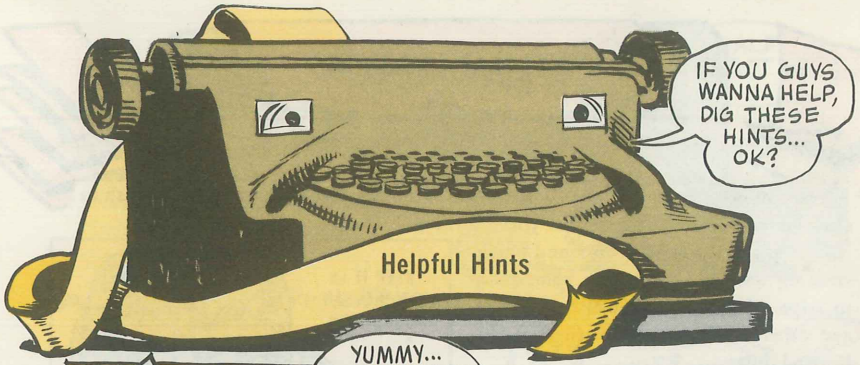


Check the ON-OFF switch to see that it starts and stops your machine.

Always make sure you turn the switch to OFF when you're not using your machine—even for short periods.

Take a look at the cord and make sure it has no cuts, breaks or bare places.

Make sure the plug is tight in the electrical outlet.



Helpful Hints

Always use an extra sheet of paper if you're not typing carbons. That sheet will save wear and tear on the platen.

When removing paper from your typewriter, always use the paper release lever—never yank the paper out of the typewriter.

Soft drinks, coffee and food can gum up the works, so steer clear of your machine when you're eating. Watch how you use that type correction fluid. Dropping it inside your typewriter can put it out of commission.

Clean the type and platen before you cut your stencil and then again after you've finished.

Never oil typewriter—leave the oiling to the serviceman.

Don't try to be a typewriter repairman. Keep your typewriter clean and change the ribbon when necessary but call for help if you need repair.

When changing the ribbon, take a look at how the old ribbon is threaded through the guides before you remove it.

Order a copy of TM 10-7400-201-10 (Apr 64), and Ch 1 (Mar 65), Operator's Manual, Office Machines, if you don't have one.

You'll find FSN's for your typewriter covers listed in Fed Cat C7420/30-IL-A (Sep 71).

P.S MORE

MIMEOGRAPH MACHINES

Your mimeograph machine needs PM too. You should use a long handled brush to clean all parts of the machine that you can reach.

Use a clean cloth moistened with cleaning and reconditioning compound to wipe all exposed surfaces free of ink and other foreign matter such as paper lint and dust.

You should remove the impression roller from the machine at least once a week and clean it with a clean cloth lightly moistened with the cleaning and reconditioning compound.

Clean the rubber feed, retainer pads and segment roller (If your machine has these).

Here's a list of common problems you might have when you're operating your mimeograph. (The word repairman after the problem means that you should call your office machine repairman.)

Imperfect Copies

Bad stencils (could be the typewriter or the stencils might be old)
Lack of ink or too much ink
Clogged cylinder (repairman)
Cloth ink pad clogged
Lint on stencil
Dented cylinder (repairman)

Crooked Copies

Stencil typed crooked
Segment rollers swollen (repairman)
Impression roller out of alinement
Stencil stub strap out of adjustment
Paper guide rails out of adjustment

Paper Feed

Feed pads worn (repairman)
Feed pads shiny
Loading tray not elevating (repairman)
Retainer pad pressure too heavy or too light

Paper Catching

Tip end of strippers caught under plates
Strippers caught on impression roller
Feeding curled or punched paper
Impression roller not coming up when paper is fed through (repairman)

Paper Whipping To One Side

Segment rollers swollen (repairman)
Paper stops bent (repairman)
Strippers bent or caught on plate

Paper Wrinkling

Stripper set too close to impression roller
Segment rollers swollen (repairman)
Impression roller swollen (repairman)
Paper (curled, punched, poorly cut or stacked).

Stripping

Over-inked pad
Stripper bent or damaged (repairman)
Static condition (install tinsel) (repairman)
Feeding narrow paper through center
Stripper set too close or too far from edge of paper roller.

Helpful Hints

You should unplug the electric cord at the end of your working day.

Be sure to use the paste ink in the machine that uses paste ink and liquid ink in the liquid ink cylinder. Take a look at the inside of the cylinder. There's an ink reservoir in the liquid type cylinder and there isn't one in the paste type.

What happens when you mix 'em? The paste in the liquid cylinder does not print. The liquid in the paste type cylinder will run all over. Both will result in a trip to the shop.

END

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 (Jun 72), and Ch 1 (Aug 72), TM's, TB's, etc.; DA Pam 310-6 (Jul 72), and Ch 2 (Jan 73), SC's and SM's; DA Pam 310-7 (Aug 72), MWO's; and DA Pam (C) 310-9 (Nov 71), COMSEC Pubs.

PUBSIM

TECHNICAL MANUALS

TM 5-766 Sep Elec Power Generation
TM 5-4310-347-24P Nov Compressor, 5 CFM
TM 5-4930-220-12 Oct 600 Gal Tank Unit
TM 5-4930-228-24P Oct Tank and Pump Unit Truck Mounting
TM 9-1430-533-24P Sep Radar Set AN/MPQ-46 (XO-1)
TM 9-2300-224-ESC Nov M113 Carrier Family
TM 9-2300-224-20P Aug Tools, Repair Parts for M113 Carrier Family
TM 9-2300-257-ESC Nov M113A1 Carrier Family
TM 9-2320-218-ESC Oct ¼ Ton M151 Series Truck
TM 9-2320-260-20 Jul Truck, 5-Ton, M809-Series
TM 9-2320-260-20P Nov Truck, 5-Ton M809-Series
TM 9-2330-273-14 Nov Semitrailer, 15-Ton M674, M681, M682, M683
TM 9-2330-274-14 Nov Trailer: 3½-Ton, M536, M532, M537, M533; 4 Ton, M794, M795
TM 9-2350-217-ESC Oct M108/M109 Howitzers
TM 9-2350-217-24P/1 Oct M108, M109 SP Howitzers
TM 9-2350-224-ESC Dec M48A3 Tank
TM 9-2350-238-ESC Nov M578 Recovery Vehicle
TM 9-2350-242-ESC Nov M88 Recovery Vehicle
TM 9-2350-244-ESC Nov M114 Carrier Family
TM 9-4935-540-14-2 Sep Shop Equip for Imp HAWK
TM 9-6920-585-24P Oct AN/TSQ-T3 Chaparral
TM 11-1510-201-20P-2 Nov Avionics for U-8D, U-8F
TM 11-1510-209-20P Nov Electronics for U-21A, U-21G
TM 11-5820-792-14 Oct AN/FRC-154(V) (Mdls 1 through 28)
TM 11-5820-805-24P Dec AN/GRR-24
TM 11-5840-252-ESC Sep AN/FPS-71, AN/FPS-71A, AN/FPA-16
TM 11-5840-296-ESC Sep AN/FPS-69, AN/FPA-15
TM 11-5895-482-12 Sep AN/TSC-26
TM 11-6130-236-24P Oct Charger, Btry PP-1451/G
TM 11-6625-2578-12 Oct OQ-60/USQ-46
TM 55-1520-228-CL Oct OH-58A Checklist
TM 55-1520-228-20 Oct OH-58A
TM 55-1520-228-20P Oct OH-58A
TM 55-2840-231-20P Nov T-63-A-5A and T-63-A-700
TM 55-2840-232-20P Oct Turboprop PT-6A-20, T-74-CP-700 & -702; PT-6A-20, T-74-CP-700 & -702
TM 55-6650-301-13 Nov Borescope Set, Rotor Blade, Borescope Assy, Borescope Stand

MISCELLANEOUS

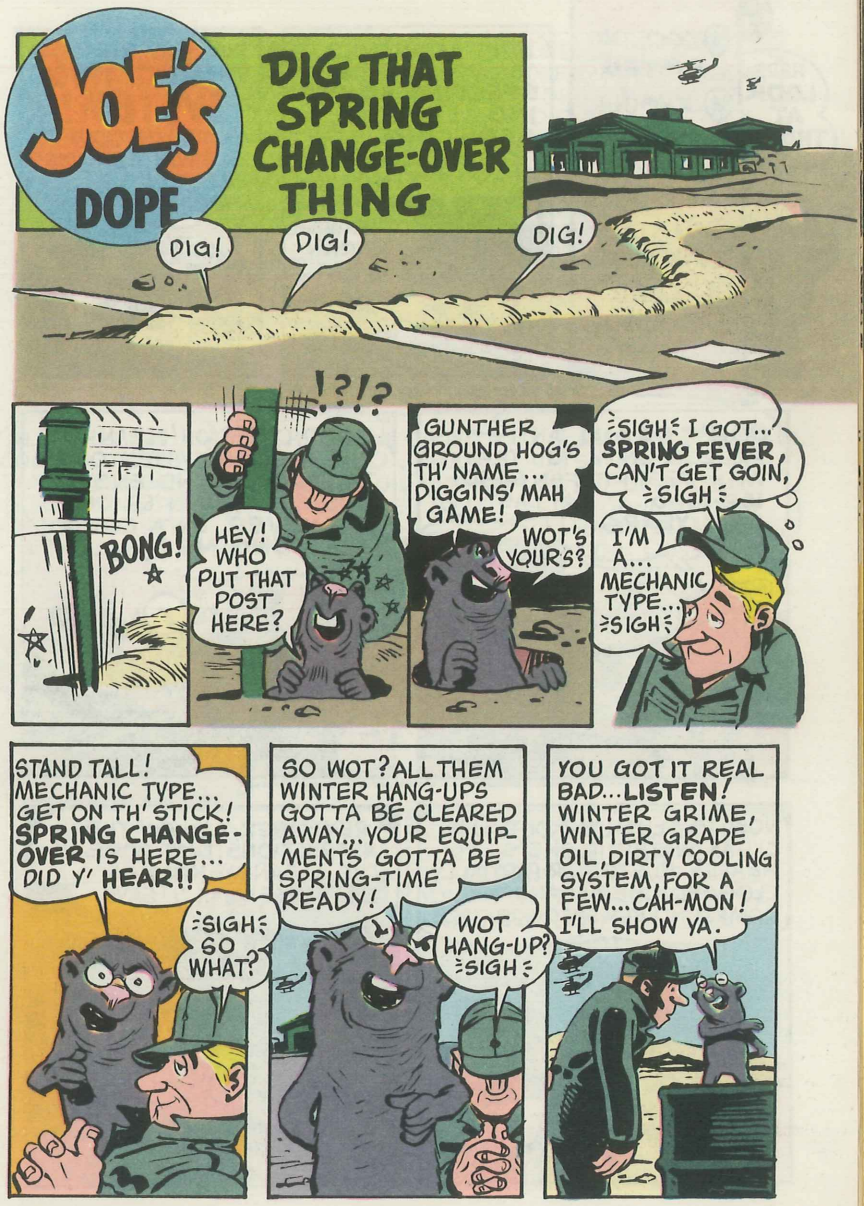
LO 9-1430-502-12 Oct Radar AN/MPQ-35
LO 5-5420-202-12-1 Oct M60A1 Bridge Launcher
SB 11-633 Oct Mount Adapter for AN/PPS-5 and AN/PPS-5A
SB 700-50 Oct Expendable Items
SC 5180-95-CL-A02 Oct Tool Kit, Nike-Herc
SC 5180-95-CL-A47 Oct Tool Kit Chaparral
SC 5180-95-CL-A61 Nov Tool Kit, Repairman AN/TSQ 73
TB 55-6650-300-15 Ch 2 Oct Spectrometric Oil Analysis
TB 742-93-1 Oct Compressors
TB 746-92-1 Nov Painting, Marking Guided Missles, Rockets

2½-Ton Switch

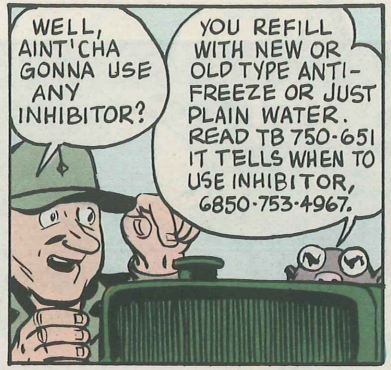
There're 2 different low air pressure switches for those 2½-ton multifuel trucks. But they're not interchangeable—you replace a switch with another of the same design. FSN 5930-434-5441 has a male pipe fitting at one end and 2 electrical terminals at the other end. FSN 5930-058-1576 has a female pipe hookup on one side, an electrical terminal at each end and 2 screw holes for mounting on the other side.

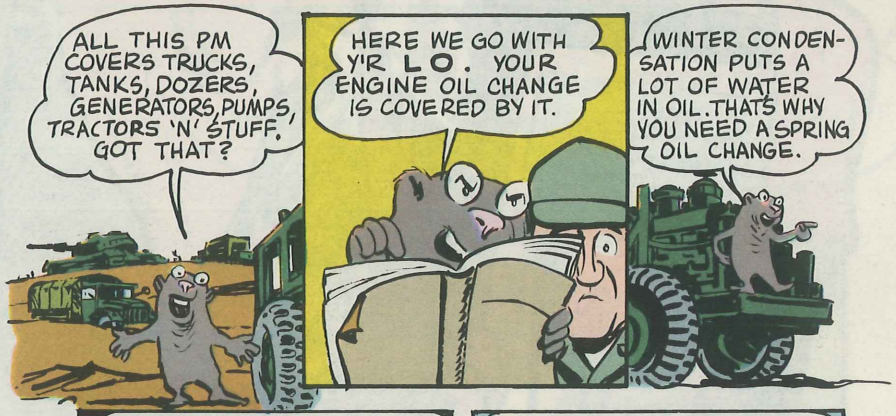
Air-Line Seal

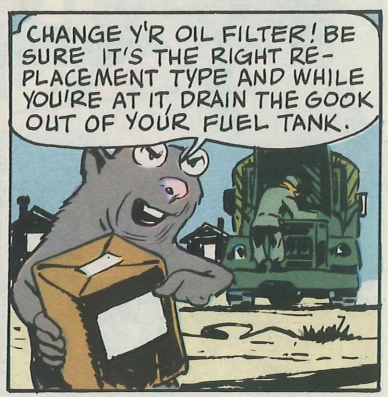
Been looking for an air-line seal for components of your Chaparral AD missile system? The soft seal, FSN 5330-998-7372, on page 3-7 of TM 9-4935-587-20P (Aug 72) does the job. Like you know, you need a soft seal on all air lines. The seal also is listed in TM 9-1440-585-34P (Oct 72) for several applications.

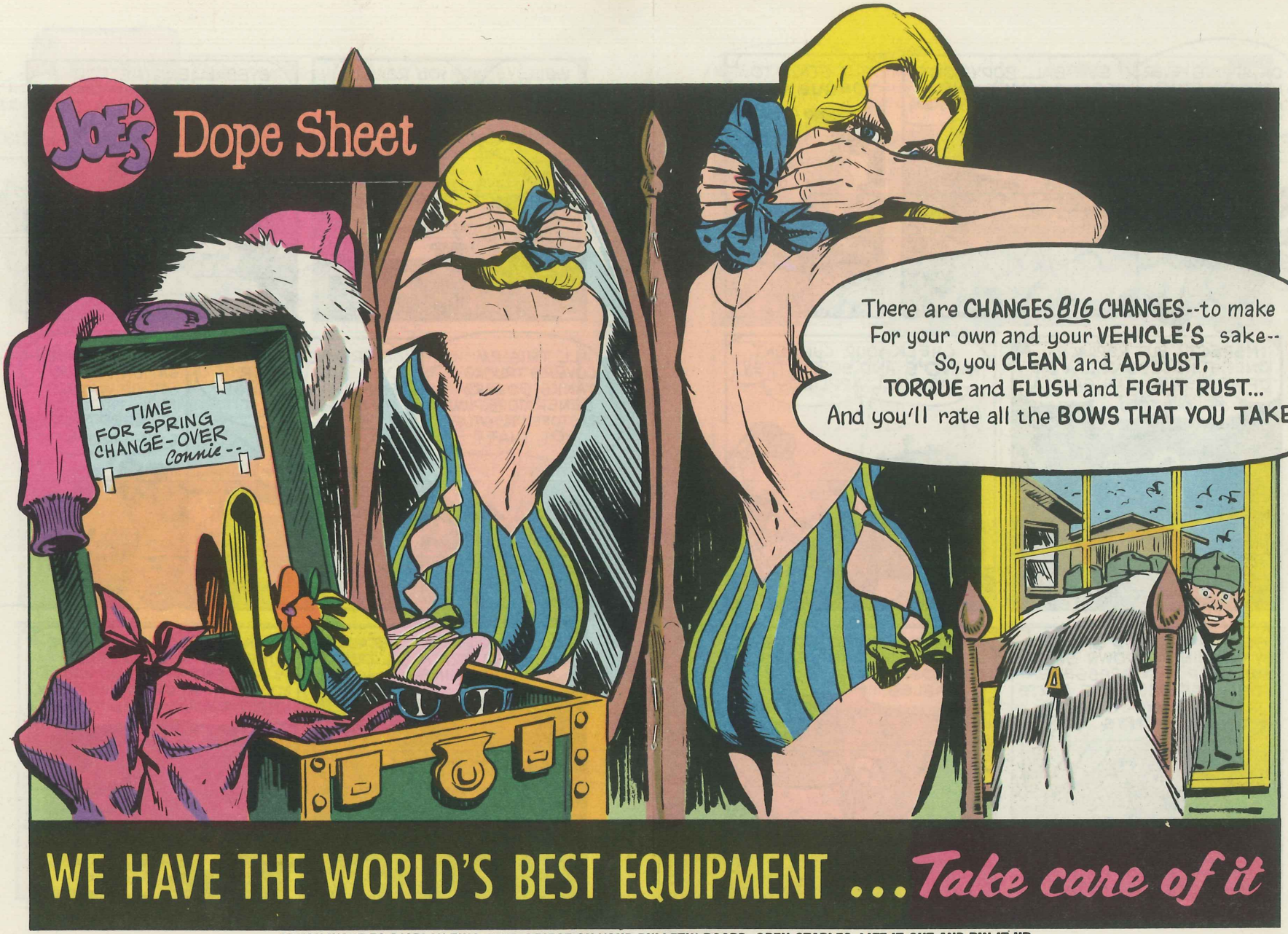


* PREVENTIVE MAINTENANCE



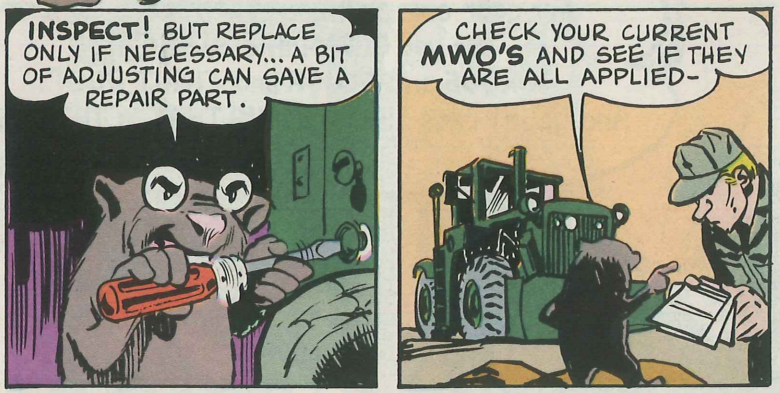


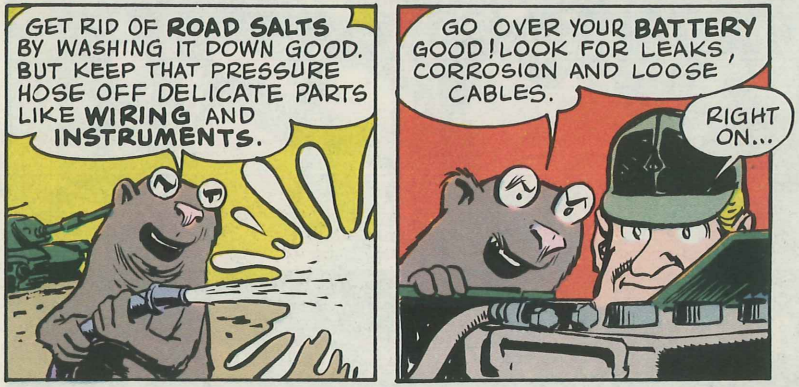




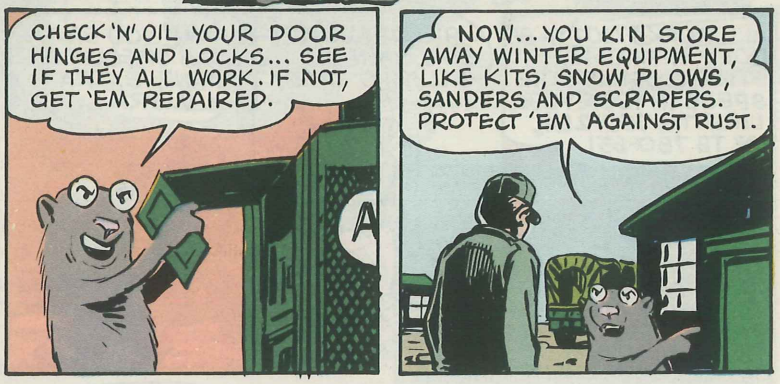
IF YOU WANT TO DISPLAY THIS CENTERPIECE ON YOUR BULLETIN BOARD, OPEN STAPLES, LIFT IT OUT AND PIN IT UP.

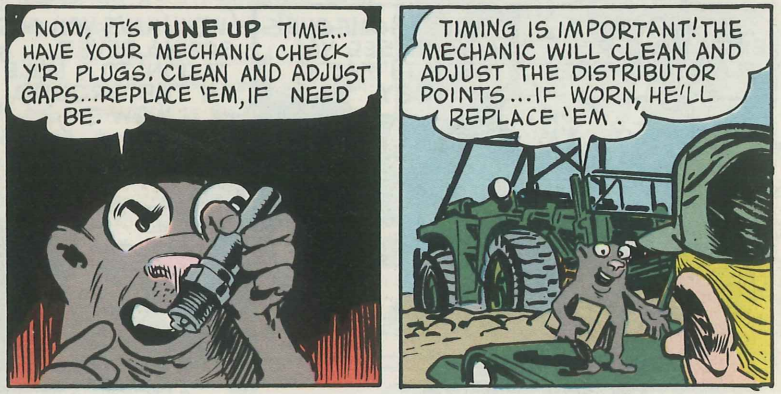

OK, SPRING FEVER, LET'S DO SOME ADJUSTING, FIXING 'N' TIGHTENING.
EYE-BALL BODY BOLTS, SCREWS, CLAMPS AND BRACKETS... TIGHTEN 'EM IF NECESSARY.
BUT STICK TO **TORQUE SPECS!**
HUM! I'M SNAPPIN' OUT OF IT...


INSPECT! BUT REPLACE ONLY IF NECESSARY... A BIT OF ADJUSTING CAN SAVE A REPAIR PART.
CHECK YOUR CURRENT **MWO'S** AND SEE IF THEY ARE ALL APPLIED-


GET RID OF **ROAD SALTS** BY WASHING IT DOWN GOOD. BUT KEEP THAT PRESSURE HOSE OFF DELICATE PARTS LIKE **WIRING** AND **INSTRUMENTS.**
GO OVER YOUR **BATTERY** GOOD! LOOK FOR LEAKS, CORROSION AND LOOSE CABLES.
RIGHT ON...


WHEN DOES TH' TOUCH-UP START? I LOVE T' PAINT.
REMEMBER, PAINT UP... DON'T SLOP-UP.
INSPECT YOUR UNIT MARKINGS AND IDENTIFICATION PLATES FOR EASY READING.


CHECK 'N' OIL YOUR DOOR HINGES AND LOCKS... SEE IF THEY ALL WORK. IF NOT, GET 'EM REPAIRED.
NOW... YOU KIN STORE AWAY WINTER EQUIPMENT, LIKE KITS, SNOW PLOWS, SANDERS AND SCRAPERS. PROTECT 'EM AGAINST RUST.

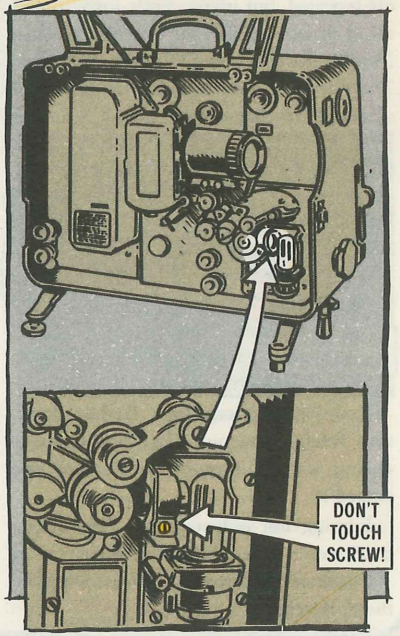

NOW, IT'S **TUNE UP** TIME... HAVE YOUR MECHANIC CHECK Y'R PLUGS. CLEAN AND ADJUST GAPS... REPLACE 'EM, IF NEED BE.
TIMING IS IMPORTANT! THE MECHANIC WILL CLEAN AND ADJUST THE DISTRIBUTOR POINTS... IF WORN, HE'LL REPLACE 'EM.

Ever hear of the Venus flytrap? Well, it's a plant that sits around looking pretty and patient, until some curious, unsuspecting bug goes poking around. Zonk! No more insect.

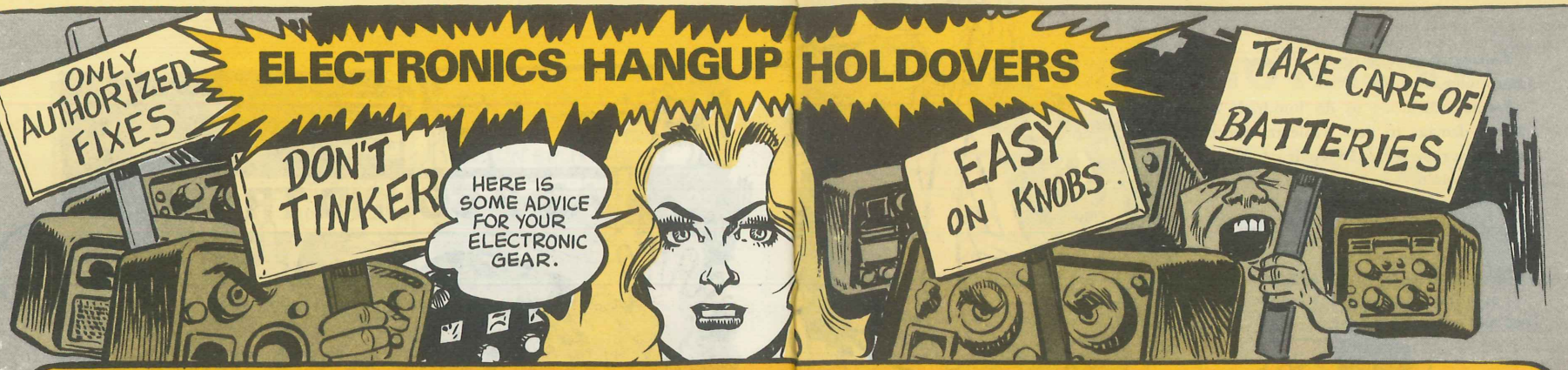
The curious, unsuspecting troop who pokes around the scanning lens locking screw on the AS-2(1) projection set is also heading for trouble. The temptation is much the same. It's a sound trap.

There sits the screw, sealed and usually red-coated, locking the optical system in place. Because it is sealed, it fairly screams for somebody to dig it out and turn it. Well, walk away, friend. Resist the urge! If you break the seal, the scanning lens will work loose.

When that happens, the sound gets fouled up. It takes a trip to support for repair . . . and support should have been the only ones screwing with that screw in the first place.



ELECTRONICS HANGUP HOLDOVERS

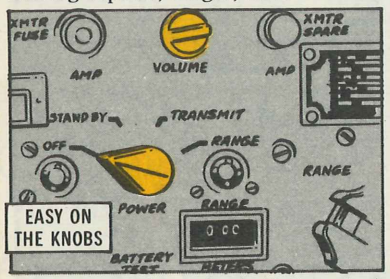


So what've you got?

If the electronics that make commo equipment, missile systems, engineer items, weapons and support equipment go could talk, they'd be speaking the same language.

There are basic do's and don't's that go with the name . . . no matter whatever else "electronics" may be attached to.

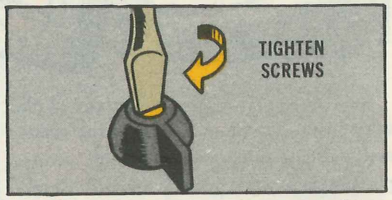
KNOBS AND SWITCHES. The story is oft-repeated, but it apparently loses something in the translation: You don't manhandle switches on electronics gear. They are delicate. Necessarily so, considering expense, weight, bulk.



You never force them. If they don't turn freely, find out why. If they stop during a turn, they probably were designed to.

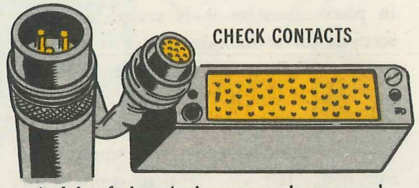
Forcing not only tears up the switch, but it could bust the built-in stop.

Check retaining screws often. Tighten them, if necessary.



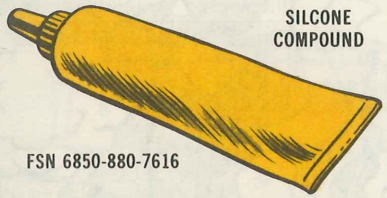
Protect switches, too. Snags, clothing and tools grab them like magnets, so work around them with that in mind. CORROSION is a forever problem with electronics gear . . . more so in hot, humid areas.

Contacts, pins, connections need a look-see regularly.

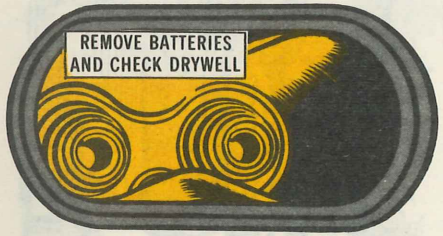


A dab of electrical contact cleaner such as FSN 6810-930-6311 (12-oz can) may be the answer.

Silicone compound, FSN 9150-257-5358 (8-oz tube), lightly applied, is a good preventive on antenna section threads. Best bet for O-rings or other water seals is silicone compound FSN 6850-880-7616 (8-oz tube), but keep it off electrical contacts. It's an insulator.



A super susceptible corrosion getter is the battery well of electrical-electronics gear.



Check it often. The hotter and more humid the area, the more often you check. Daily, even.

BATTERY WELLS bring up another electronics gear killer.

Doesn't seem possible that a battery, costing anywhere from a few cents to a few dollars, can do hundreds and even thousands of dollars worth of damage. But it can . . . and does.

Why?

Because a battery normally is out of sight, and people forget it. So, it hides in gear for days, weeks, even months . . . and eats away like termites.

There's gonna be a difference in eating time like, say, between Alaska and Southeast Asia, but eat they will . . . unless you follow the sure-cure rule:

Take 'em out!

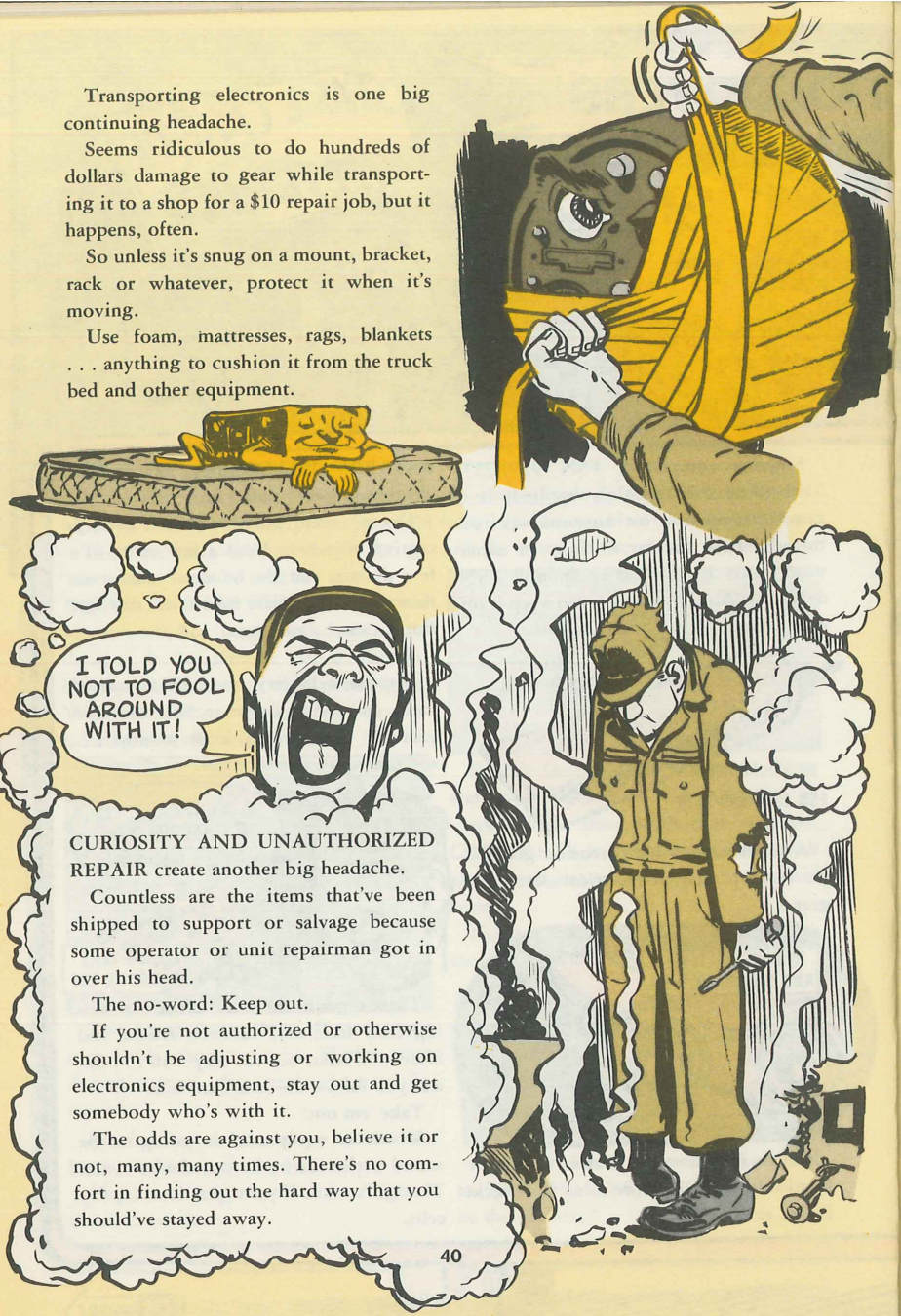
Whenever equipment is going to be stored or lie idle, take out the batteries. That goes triple if your gear is using dry cells.

Transporting electronics is one big continuing headache.

Seems ridiculous to do hundreds of dollars damage to gear while transporting it to a shop for a $10 repair job, but it happens, often.

So unless it's snug on a mount, bracket, rack or whatever, protect it when it's moving.

Use foam, mattresses, rags, blankets . . . anything to cushion it from the truck bed and other equipment.



CURIOSITY AND UNAUTHORIZED REPAIR create another big headache.

Countless are the items that've been shipped to support or salvage because some operator or unit repairman got in over his head.

The no-word: Keep out.

If you're not authorized or otherwise shouldn't be adjusting or working on electronics equipment, stay out and get somebody who's with it.

The odds are against you, believe it or not, many, many times. There's no comfort in finding out the hard way that you should've stayed away.

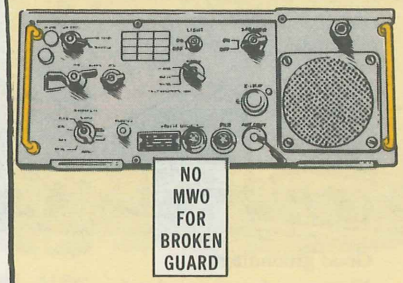
NO HANDLES TO HANDLE

Dear Half-Mast,

Should the guards on the RT-524A or RT-246A receiver-transmitter be replaced when they're broken or bent? Are they covered by MWO 11-5820-401-20/1 (Aug 69), which authorizes handles for RT-524 and RT-246?

If not, is there an FSN for handles on the A models?

MSG J. V.



Dear Sergeant J.V.,

When you've got broken or bent guards on your RT-524A or RT-246A, forget MWO 11-5820-401-20/1. The "A" model is not covered by the MWO. There're no replacement guards available for the "A", either. Your RT will have to go to Depot for guard replacement.

Half-Mast

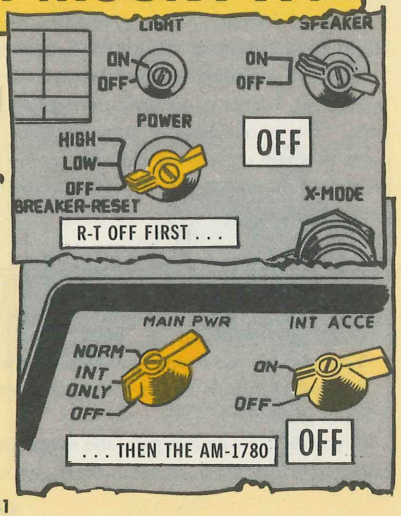
POWER OFF? MOUNT IT!

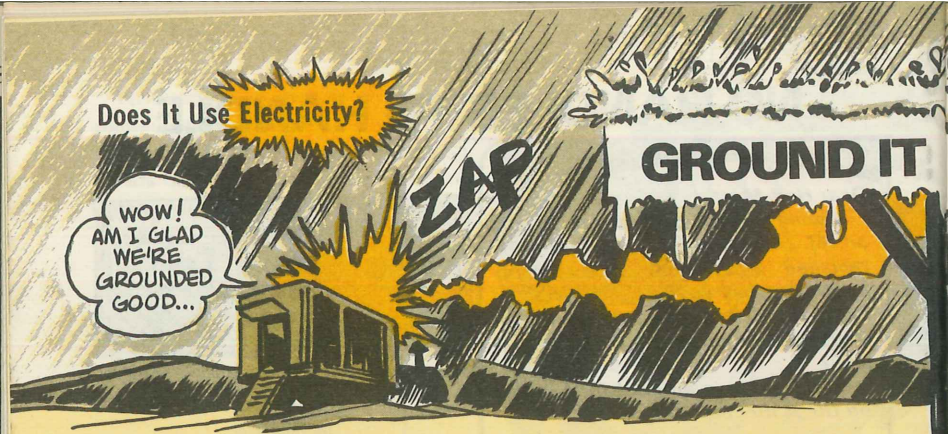
One thing you gotta remember about removing a radio component from a mount:

Turn off the power first . . . at the radio set . . . or at the radio set and the AM-1780, if you've got that control box.

Be sure the power's off when you install the stuff, too.

Otherwise, arcing can fry off contact pins . . . or burn out the mount connector.





GROUND IT SOUNDLY

Good grounding?

Y'crave it for personal safety. Y'want it for efficiency of equipment operation. Y'need it to keep away the lightning and high voltage.

Poor grounding can introduce itself with hum and other noise interference on communications circuits. It can damage equipment and expose personnel to possible fatal electrical shock.

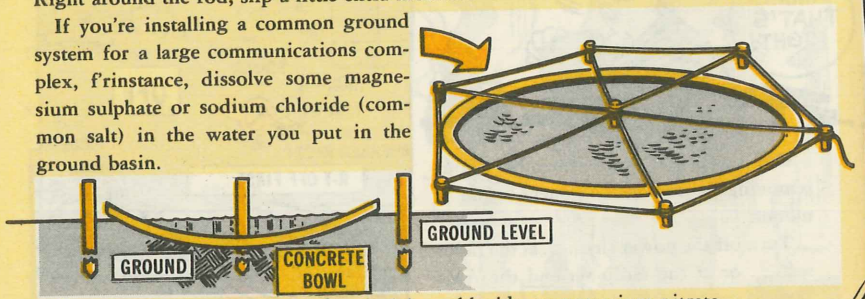
You get good grounding by concentrating on such things as permanent moisture level, clean ground-rod attachments, water-saturated terrain when necessary, and the right kind of chemicals and grounding equipment.

GROUNDING TECHNIQUES

The technical requirements for good grounding vary for different areas, but some basic factors hold generally true.

You can sharpen up your grounding by saturating the ground-rod area with water. Right around the rod, slip a little extra moisture for a little extra efficiency.

If you're installing a common ground system for a large communications complex, f'rinstance, dissolve some magnesium sulphate or sodium chloride (common salt) in the water you put in the ground basin.



You can also use copper sulphate, calcium chloride, or potassium nitrate.

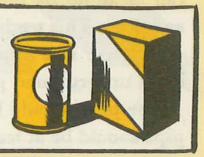
Adding chemicals to the water gives you better conductivity . . . in other words, a better ground.

If you've got—or can get—the magnesium sulphate, use it. There's less chance of corrosion, which can, in time, affect conductivity.

CHEMICAL AIDS

For general effectiveness and anti-corrosion qualities, the main usable chemicals rank as follows:

1. Magnesium sulphate (Epsom salts)
2. Copper sulphate (blue vitriol)
3. Calcium chloride
4. Sodium chloride (common salt)
5. Potassium nitrate (saltpeter)



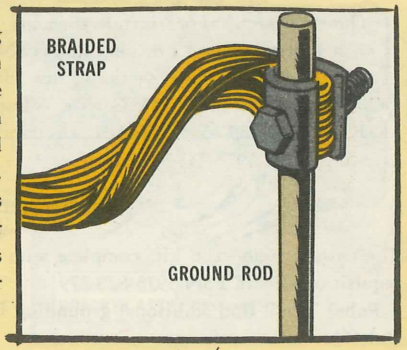
If you're tackling a grounding installation for an individual end item (a shelter, fixed-location radio set, etc.), you can either dissolve one of the recommended chemicals in water and use the combination to saturate the ground area, or give the soil a chemical treatment.

Dig a shalow circular trench about 18 inches around the ground rod and line the trench with the chemical. Keep the area moist around the ground rod.

BEST LEADS

Standard braided copper grounding straps are the best ground leads. If you don't have 'em, improvise leads from the heaviest-gauge copper wire you can latch onto. Consider this an expedient until you do have the braided copper straps.

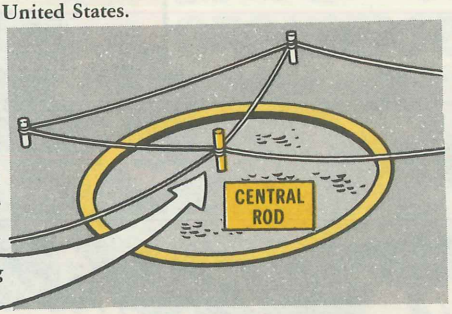
Keep your grounding leads as short as possible—under 6 feet, as a rule. Solder or clamp connections of grounding leads to ground rods, equipment frames, or cable sheaths.



PS MORE

Your ground rod, for good performance, should penetrate the permanent moisture level, which is usually about 8 feet in the United States.

For top-hole efficiency, install multiple ground rods and connect 'em. Drive the additional rods around a central rod, keeping at least 10 feet between the rods. Connect the additional rods to the central ground rod with buried copper ground straps or #6-gauge (or heavier) copper wire. Solder or clamp the connections.



Use the central rod as the grounding point for equipment.

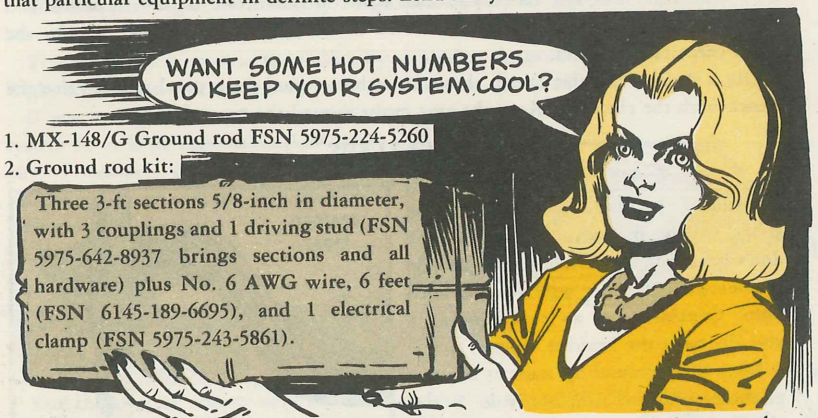
HARD EARTH

If you're installing a rod in rocky or frozen earth and you've got problems, you can make do by burying the rod horizontally in a narrow trench a foot or so wide and deep. This tends to increase your grounding efficiency under difficult conditions.

If you're in a bind, you can rig up a workable ground using a buried copper plate or an underground pipe, like in a water system, f'rinstance.

The plate should be at least 9 square feet. Bury it at least 4 feet. A suitable ground pipe should be at least ¾-inch in diameter, about 4 feet down.

O'course, the TM's on specific equipment often spell out the grounding rules for that particular equipment in definite steps. Lend an eyeball. Heed.



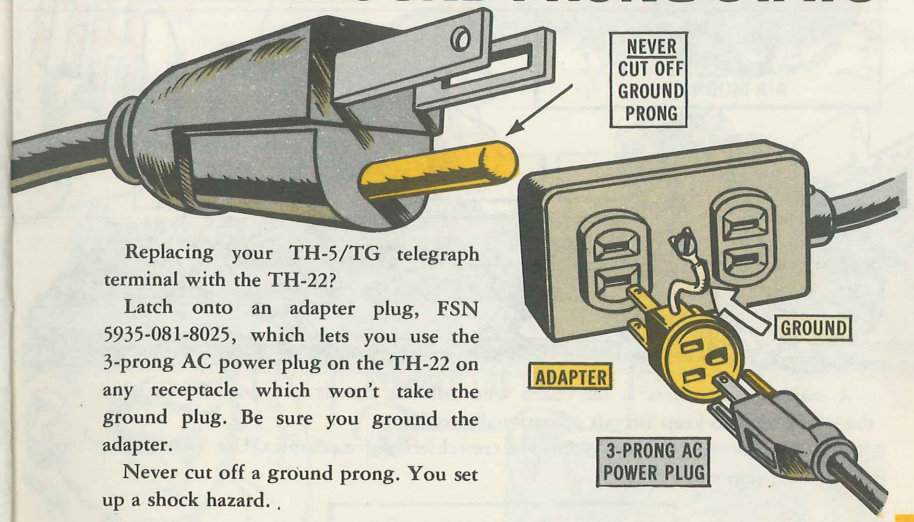
1. MX-148/G Ground rod FSN 5975-224-5260
2. Ground rod kit:

Three 3-ft sections 5/8-inch in diameter, with 3 couplings and 1 driving stud (FSN 5975-642-8937 brings sections and all hardware) plus No. 6 AWG wire, 6 feet (FSN 6145-189-6695), and 1 electrical clamp (FSN 5975-243-5861).

The entire ground rod kit, complete with couplings, stud, wire, and clamp can be requisitioned with FSN 5975-878-3791.

Pubs? You'll find additional grounding info in FM 24-20 (Feb 70) and FM 24-18 (Jul 65).

TH-22 GROUND PRONG STAYS



Replacing your TH-5/TG telegraph terminal with the TH-22?

Latch onto an adapter plug, FSN 5935-081-8025, which lets you use the 3-prong AC power plug on the TH-22 on any receptacle which won't take the ground plug. Be sure you ground the adapter.

Never cut off a ground prong. You set up a shock hazard.

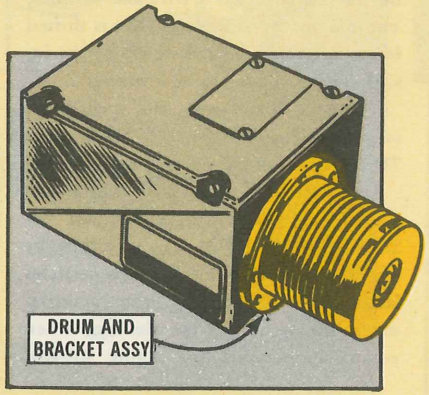
ASW-12 TURN-IN

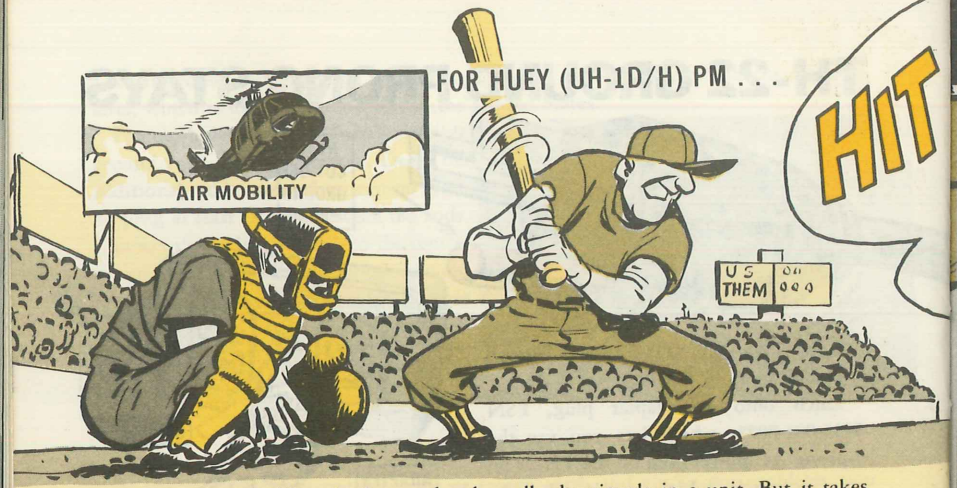
Hey, man, if you're about to ship your TG-81A/ASW-12 electro-mechanical actuator back to depot without a drum and bracket assembly, stand by for an FSN change.

Without the drum and bracket, the item reads like so:

Servodrive assembly, Part No. 2585089-4, FSN 6615-400-2726.

Only the complete item, electro-mechanical rotary actuator TG-81A, gets FSN 1680-805-3991.





A maintenance officer is the coach who calls the signals in a unit. But it takes the whole team to keep aircraft operationally ready.

Here're some winning moves for you crewchiefs and mechanics. Use 'em to score on the bird status chart.

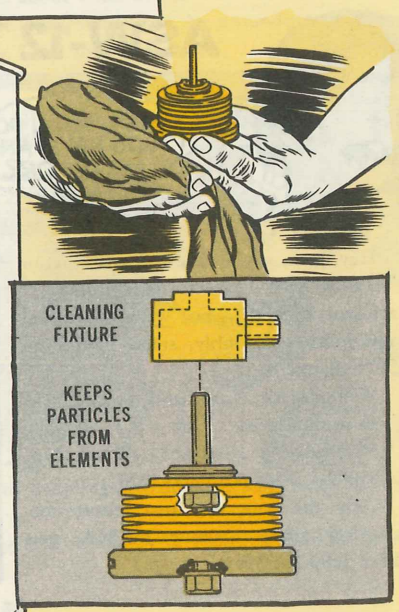
CLEANING TOOL A MUST

Take the T-53 engine oil filter.

Some types clean the filter by stringing the elements on a wire and sloshing 'em in a bucket of solvent. Dirt is shifted from the outside of the wafers to the inside. That's no way to be a winner.

There's a better way. It's spelled out in para 5-98 of TM 55-2840-229-24 (Apr 71) on the T-53 engine.

Use oil filter cleaning fixture SPT 107, FSN 2945-893-5601, listed in TM 55-2840-229-20P (Jan 72). The fixture really lets you clean the filter. It keeps particles larger than 40 microns from entering the inside section of the elements when you soak them in drycleaning solvent.



EYEBALL THE PLUGS

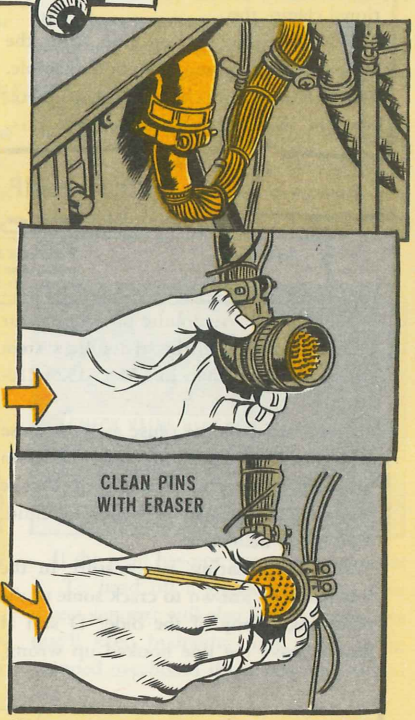
Any regular will clue you there's more to troubleshooting an engine than reading tables for the solution to a problem. That little extra needed is called experience.

Say you're testing a T-53 exhaust gas temperature system and you get a reading below average.

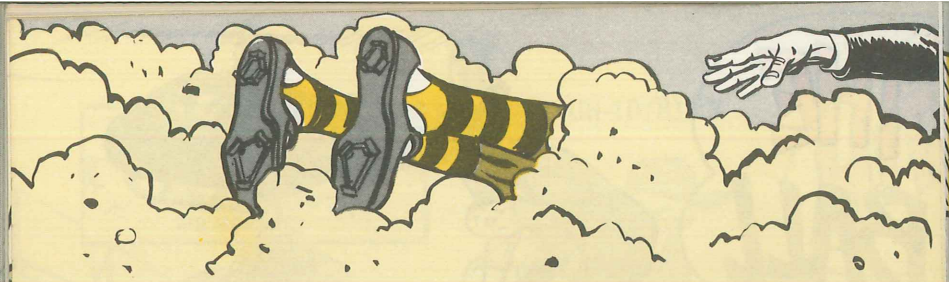
Before correcting the bird resistance spools, have a look at the main cannon plug at the firewall, near the main fuel filter. A small amount of corrosion can build up on the pins to give you the low reading.

Corrosion will even build up on tightened plugs. To remove it, use a pencil eraser on the plug pins and screw the plug off and on a few times.

Fact is, you want to check all your electrical connections before going to work with the EGT tester.



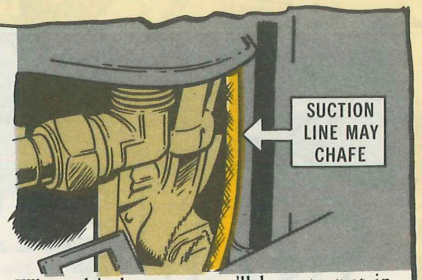
PS MORE



You're on your own when it comes to a problem common to the oil, fuel and hydraulic systems on your bird—line chafing.

The parts pub will give you the location and type of clamps to use. A vibrating, pulsating line may need an additional clamp, tho.

The hydraulic suction line from the reservoir to the pump is a good example. The wire braid can chafe on the magnetic plug in the generator drive gear box.



When this happens you'll have to put in a replacement.

An adel clamp in the right place will prevent damage to the line.

NOISY PUMP SOLUTION

Pump noisy	Pump case drain incorrectly installed on bottom of pump, causing air entrapment.	Install properly. Refer to paragraph 6-4, step b.

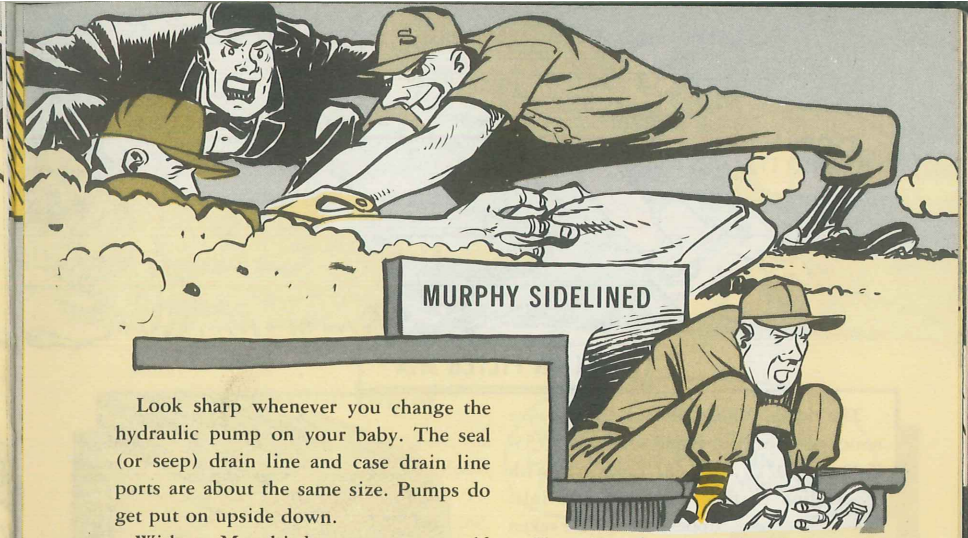
Have a noisy hydraulic pump on your Huey? Focus in on the hydraulic system troubleshooting chart in TM 55-1520-210-20 (Sep 71).

The chart lists the cause as pump case drain line incorrectly installed on bottom of pump, causing air entrapment. You're pumping air instead of hydraulic fluid. You better believe it!

Fact is, pulsating air pressure in the line has been known to crack some of the plumbing. Many of the older D and H models have the line hooked up wrong.

Go by the book. Hook the line to the top fitting, as called for in para 6-3b(4) of TM 55-1520-210-20 (Sep 71).

You'll have to shorten the line about 12 inches and use new O-rings.



Look sharp whenever you change the hydraulic pump on your baby. The seal (or seep) drain line and case drain line ports are about the same size. Pumps do get put on upside down.

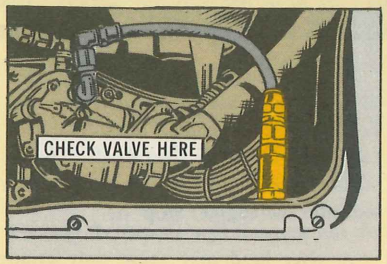
With a Murphied pump you could spend umpteen hours looking for the cause of faulty operation.

Keep Murphy on the bench. Look for the raised lettering identifying the ports when you mount the pump.

NEW LINE NEEDED

During the next time-out, eyeball the DA Form 2408-5 in your bird's log book. Make sure MWO 55-1520-210-30/31 (Aug 71) has been applied to the hydraulic system if the serial number of your baby is listed in the pub.

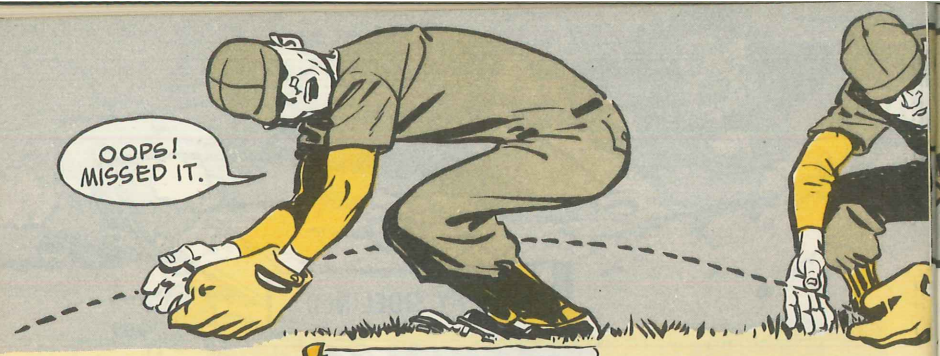
the hydraulic pump ruptures those old lines. When that happens the bird's hydraulic fluid is pumped overboard. The pilot loses hydraulic boost on the controls.



The mod removes hydraulic tube, P/N 205-076-213-1, and puts in a beefed-up line. High-freq vibrations produced by

If the mod has not been done, schedule it. To head off a sticky situation, your direct support will also add a check valve that'll keep hydraulic fluid from being pumped overboard if the new line should fail.

PS MORE



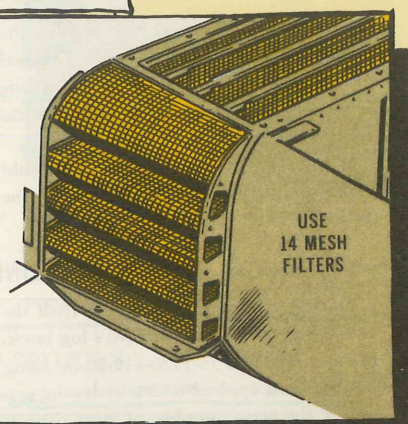
NIX ON FILTER MIX

The foam rubber barrier filters were removed from your Huey when MWO 55-1520-210-30/17 (Jun 68) came out with the engine particle separator and inlet filters. The foam rubber filters were taken out because the ice detector was removed.

Trouble is, some of the old foam filters are being used along with the new 14-mesh filters. The foam filters collect moisture which can freeze in cold weather and choke off air to the engine inlet.

You'll lose with that type of play.

Rubber filters are out when operating in cold weather.

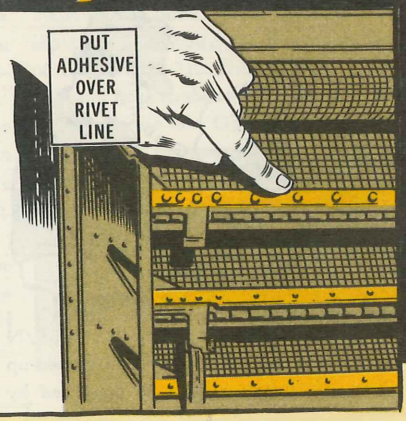


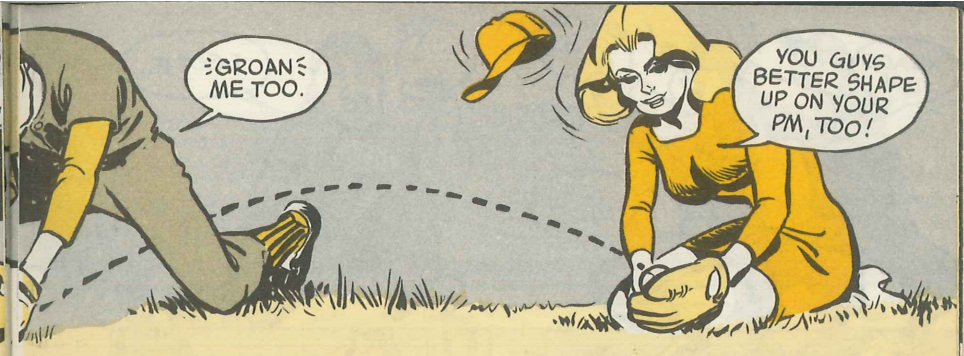
STOP FOD

Some of those 14-mesh filters, FSN 2945-027-3016, are made with the rivet heads facing the engine inlet. Vibration can break off those rivet heads. They're small enough to pass thru the inlet screen and into the engine. Stop it!

A rivet head may cause only minor damage, but why take the chance?

Put a bead of adhesive compound Mil-S-8802, FSN 8030-753-5006 over the rivet line. It'll hold the rivet heads in place even if they should break.





CLEANING YOUR ENGINE

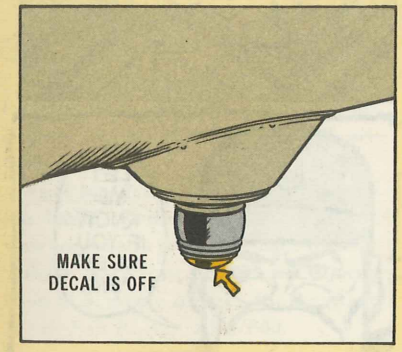
When you clean your Huey engine, the best way is to use the water-soluble cleaner called for in para 7-15 of TM 55-2840-229-24 (Apr 71) on the T-53 engine.

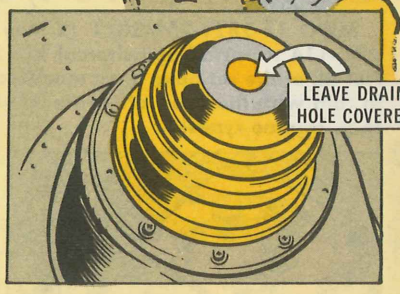
If you use the alternate cleaner, tho, abrasive grain is what you want.

SIGNALS CROSSED?

Signals put out by your Huey have to be seen by all the players. All rotating beacons must be working. Beacons come from supply with a decal covering the water drain hole.

When the beacon is to go on the bottom of your bird, take the decal off so water can drain out.



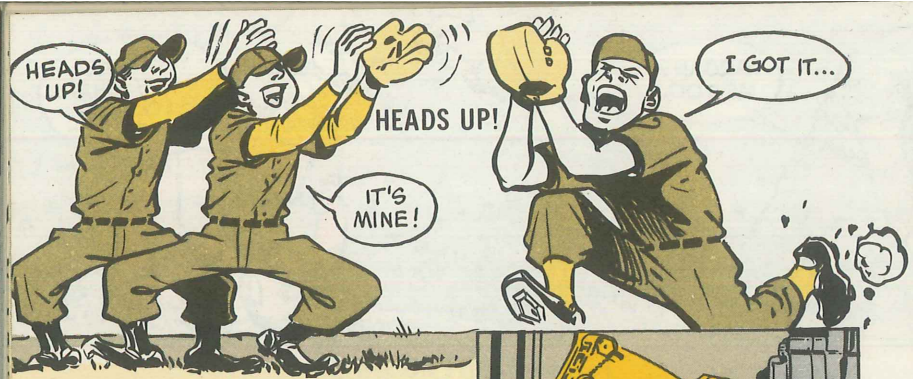


When you put the same type beacon on top of your baby, leave the drain hole covered. The decal will keep water from entering the beacon and shorting out the works.

Is the topside beacon drain taped on your Huey? If not, plug that hole!

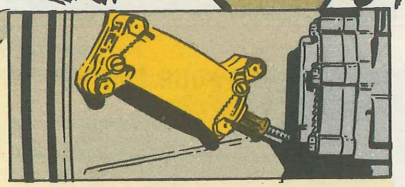
Yessir-e-e-e, you and the maintenance team will score high on the aircraft availability chart—when you practice PM . . . like a pro.

PS MORE



Your bird will be sidelined with high exhaust gas temperature readings if you put on a new fuel control and hook up the temperature sensing element wrong.

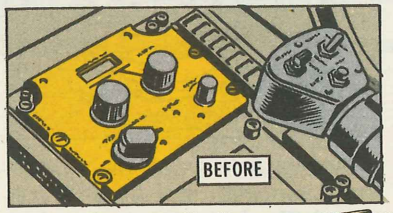
When the element is placed in the bakelite housing upside down, or sideways, it won't monitor the air right and your engine will get the wrong fuel distribution.

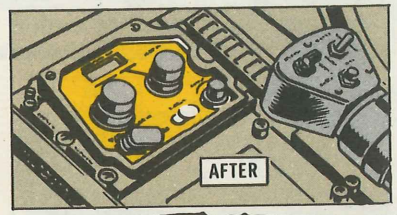


The word "TOP" is etched on the outboard end of the capillary tube. It must be readable when you place the element in the housing.

MWO of the Month

MWO 11-5821-259-30/1 (2 May 72), Modification of Radio Set AN/ARC-114 to Install Splashproof Kit, has been re-issued. For good reason. Not all of the set have been modified. So, when Kiowa (OH-58A) pilots fly in rain with the doors off, water shorts out that console-mounted job. Hop to it, commo types!





The PS office has extra copies of many of the issues since No. 199. Need any? Write to MSG Half-Mast, PS Magazine, Fort Knox, Ky. 40121.

FOR SHIPSHAPE SHIPPING

Those hard-to-come-by shipping containers for sampling fuel, oil and hydraulic fluid on downed aircraft are listed in Fed Cat C8105/15-IL-A (Jan 73), bird mechs. FSN 8115-224-7935, listed on page 3, 30, will get you a carton of six 1-gal cans.

IN THE KNOW

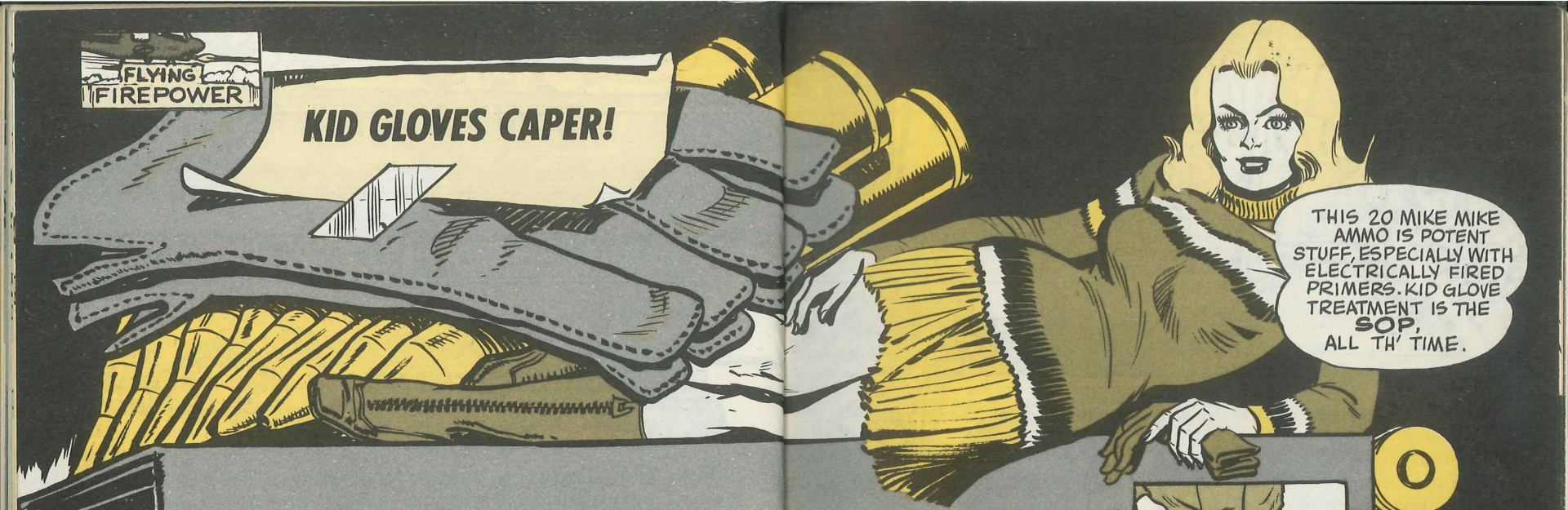
If you mechs and crew chiefs are authorized to crank up fixed wing birds, never try to show your stuff on chopper engines. Hot starts and overspeeds mean extra maintenance. That word's in para 5-14c(1) of AR 95-1 (Dec 72) on general aviation regulations.

GO-NO-GO takeoff data card decals for Hueybirds and FOD labels for mechanics' tool boxes are not stocked, airtypes.

Your best bet is to reproduce the decals locally. If this can't be done, have your command's printshop make them.

FOD labels can be ordered directly from U.S. Army Agency for Aviation Safety, Fort Rucker, AL 36360.

KID GLOVES CAPER!



Handling electrically primed 20-MM ammo for your XM195 gun on the M35 subsystem is a kid gloves caper!

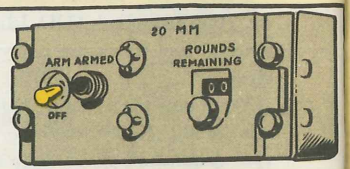
Be careful when inspecting each round for dirt, grime, damage or corrosion. You don't need to ruin your whole day with an exploded round caused by static electricity jumping from a watch or ring to the primer.

Here're some ammo handling tips that'll save your skin and bird while working with that 6-gun blasting beauty.

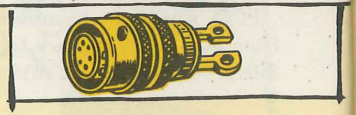
First off, keep your bird grounded.

KEEP AMMO IN ORIGINAL METAL AMMO BOX UNTIL YOU USE IT.

Next, before loading, unloading or moving ammo, be s-u-r-e all electrical switches and armament control switches are OFF. Now eyeball the armament circuit breakers. They gotta be OPEN. Keep your bird this way until you're finished.



Unhook the external firing lead at the quick disconnect plug and put on a shorting plug.



Keep metal objects—rings, watches, belt buckles—away from the primer.

Keep cartridges and links from touching the primer on another cartridge when:

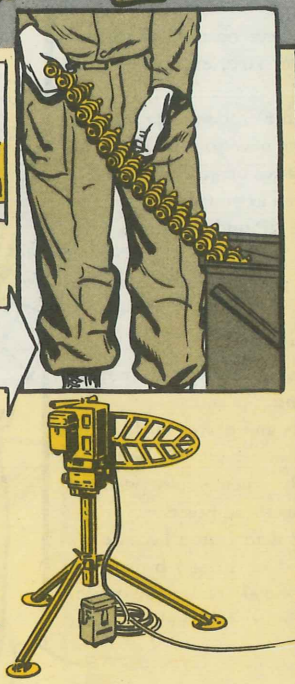
Pulling rounds from ammo boxes and hooking 'em together to form long link belts, or

Stacking ammo or spreading it on your working surface.

Never move ammo rapidly while it's touching ungrounded or nonconductive surfaces.

Handle or store ammo at the maximum practicable distance from transmitting equipment.

Any time you work with 20-MM ammo—handle it gently, ever so g-e-n-t-l-y.



Safety-First Stringers in Welding . . .

ALL-PRO GROUND RULES

There're no scrubs in the welding game.

You score as a pro or you're out of business.

You stay on top by following the safety rules to the letter.

You keep your eye on the ball to prevent injury from fire, explosion and harmful agents.

You don't fumble, don't go out-of-bounds and you're never out of uniform.

Too much depends on you . . . the safety of others as well as yourself.

Here are some ground rules that keep you in the all-pro lineup.

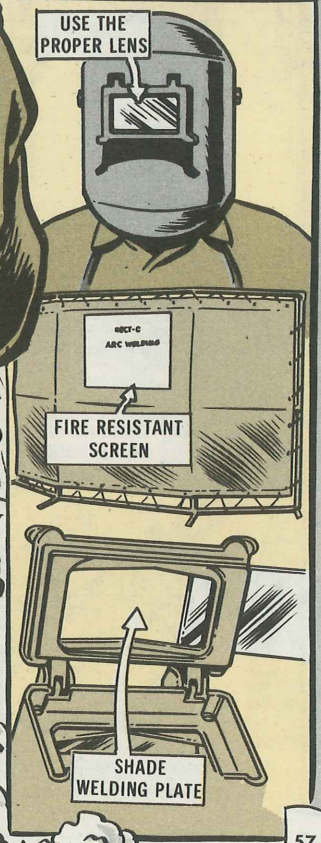
Miss one and you can be benched for good.

SUIT UP

Before starting a welding job, put on protective clothing.

Aprons, jackets and gloves made of asbestos cloth or leather are the best protection, especially when you're welding in a vertical or overhead position.

Wool is better than cotton because it's not easily burned or ruined by spatter, sparks and hot metal. Never wear synthetic fiber clothing. It'll melt on your skin.



FIRST, BE SAFE

If you're doing electric welding, put your helmet on with the right lens. Use No. 10 with 75 to 200 amperes of current and No. 12, 13 or 14 for over 200 amps.

Protect your buddies with fire-resistant curtains or screens. They also guard against arc welding glare.

Keep your work area well ventilated. Turn on fans. Open windows and doors.

In inert gas and metal-arc welding you take extra care because of the intense ultra-violet radiation which can harm your eyes and skin. Protect your eyes and face with a welding helmet, a No. 10 or No. 12 shade welding plate and No. 2 shade flash goggles under the helmet. The skin is completely covered. You wear leather gloves and heavy clothing to guard against radiation penetrating the skin or reflecting onto the neck under the helmet. Lightweight leather clothing is better because cotton will deteriorate under ultra-violet radiation. You take further precautions by working on the "upwind" side so the fumes drift away from you. They can cause painful ozone poisoning if you breath in too much.

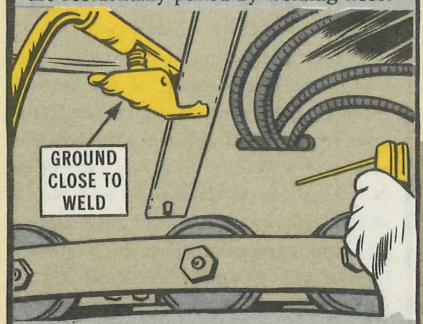
P.S. MORE

EQUIPMENT CARE

Keep your acetylene cylinders in an upright position. If you must use 'em in a horizontal position you'll draw off the stabilizing material, so don't forget to have it replaced when the cylinder is recharged. Tell 'em or tag the cylinder—let the refill guys know.

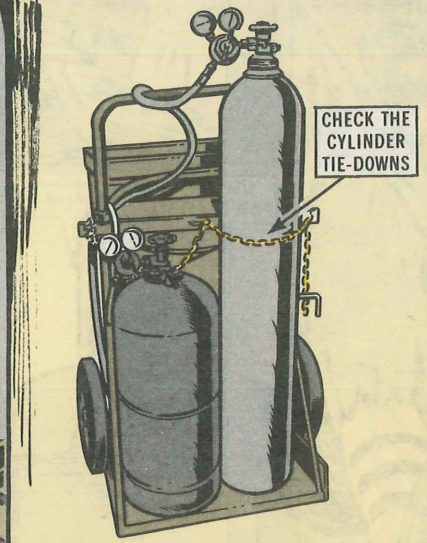
Shade the cylinders from the direct rays of the sun. They're constructed with a disc which can blow under high pressure.

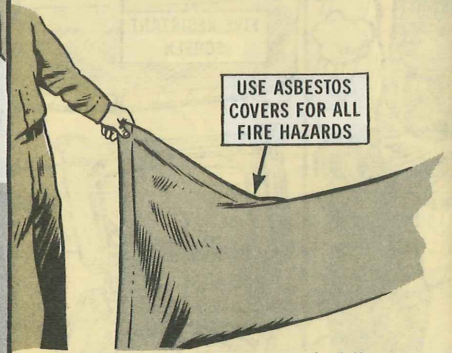
Tie-down oxygen and acetylene cylinders with a clamp, chain or rope. This'll prevent damage to regulators if cylinders are accidentally pulled by welding hose.



Make certain all ammo and gasoline cans are removed from a vehicle before you start to weld.

To weld on equipment, position the ground connection of the arc welder as close to the welding spot as possible. Never let your ground path pass through bearings. An arc may create a burn spot.



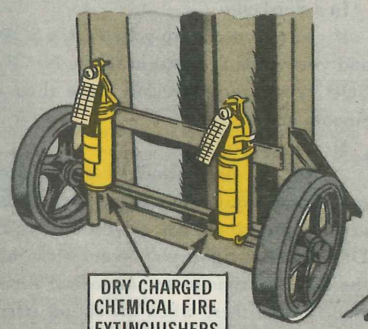


Use an asbestos blanket over fuel lines, fuel filters and other fire hazards nearby.

BE THE FIRE CHIEF

Get someone to work with you so he can warn you in time if your clothing is on fire.

Keep a dry chemical fire extinguisher handy. For example, there's the 2½-lb extinguisher, FSN 4210-889-2221, with the thrwo-away cylinder. It can be replaced with a charged cylinder, FSN 4210-889-2222.

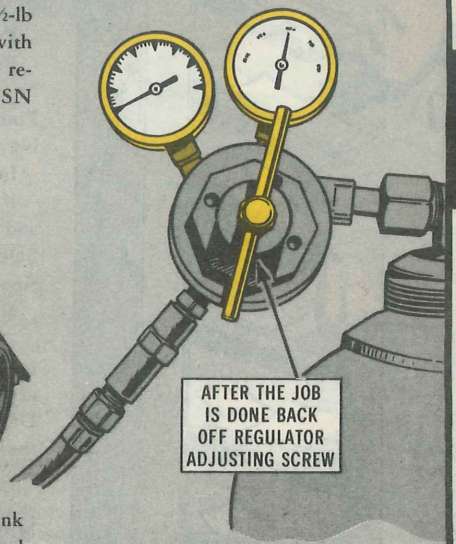


Never trust a container, drum or tank that's held flammable liquids, like fuel and oil. Clean 'em thoroughly before you weld, cut, braze or solder any of 'em. That means: Get all the fuel and its fumes out. For details, eyeball TB ORD 1047 (Feb 63), TB ORD 1031 (Aug 65) and TB ORD 322 (Sep 59).

Take a look around your work area for anything that'll burn. Flying sparks can easily set off rags, paper, oil, wood or fuel.

SUDS TIME!

At the end of the workday, don't drop everything and run.



With oxy-acetylene welding, make sure you bleed off the equipment and make certain to back off the regulator adjusting screw. After arc welding, disconnect the machine from the power supply.

If you have any doubts on safety in welding, check out the safety precautions in Chap 4 of TM 9-237 (Nov 67), Operator's Manual-Welding Theory and Application.

SYNCHRONIZED SUPPLY...?

Right!

Between you, your DSU, and the NICP's (National Inventory Control Points) and their depots—timing counts big.

In a nutshell—

If you're tuned in to your DSU's SOP, and your DSU is tuned in to the NICP's SOP, your requests can flow thru—smooth and fast.

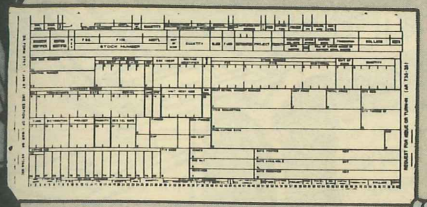
Here's the deal:

At NICP's, people and computers start processing requisitions at specified times around the clock. So, if you and your DSU work it right, your request can hit the NICP in time to get immediate attention. It'll be there when the action starts . . . instead of having to wait for the NICP's next scheduled computer run.

Check your DSU for the best time to get your requests in to them so they can hit the NICP on target.

AROUND THE CLOCK

Normally, long after you hit the sack, your DA Form 2765 continues to flow through the NICP's processing schedule —as it works its way back to you.

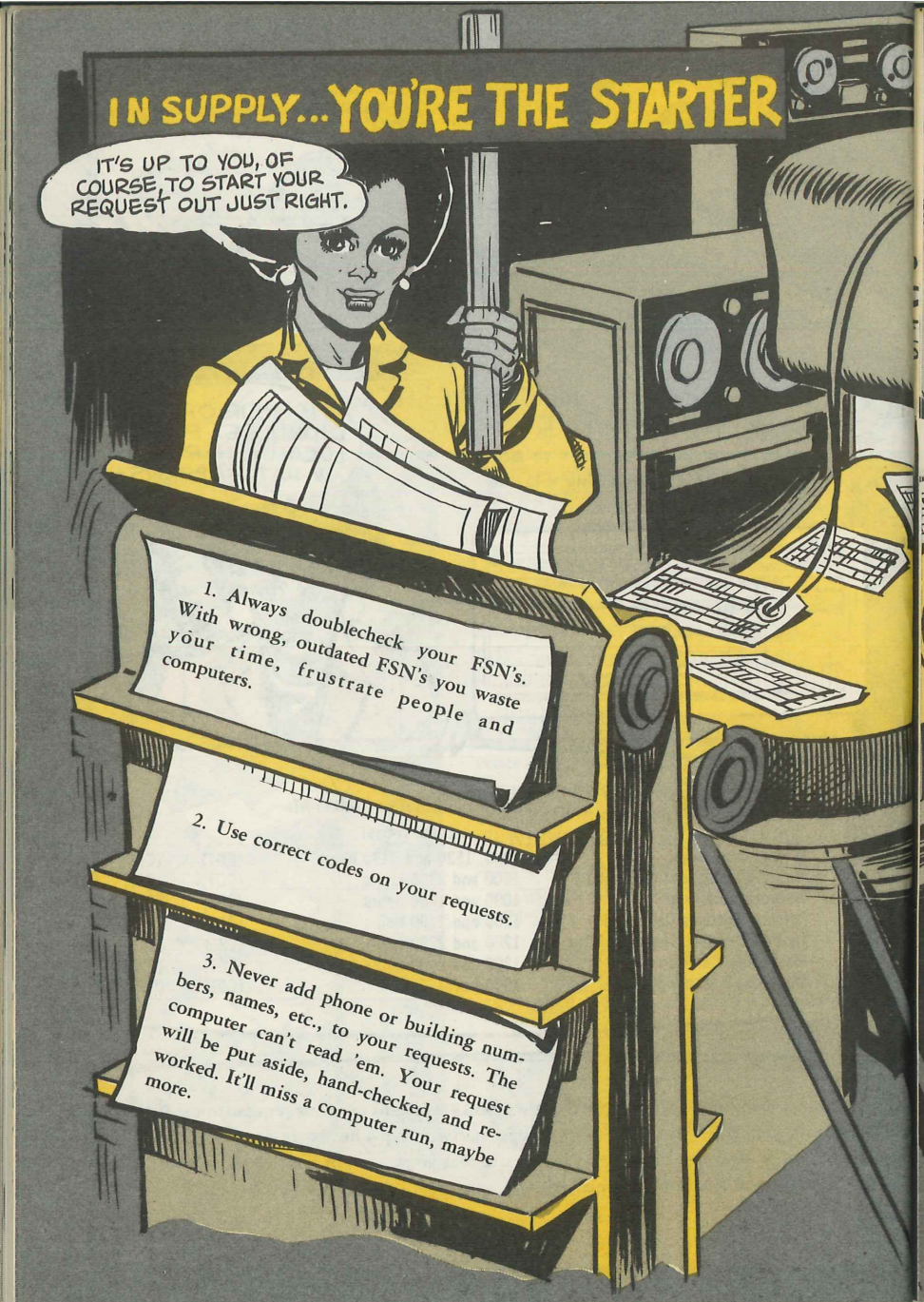


NICP:	STARTS PROCESSING (DAILY) AT: (Local Times)	or	
Missile Command	1030, 1530 and 0130 hours	(CDT)	(CST)
Mobility Equipment Command	1600 and 2300 hours	(CDT)	(CST)
Weapons Command	1000 and 1700 hours	(CDT)	(CST)
Aviation Systems Command	1200 and 2100 hours	(CDT)	(CST)
Tank-Automotive Command	1200 and 2200 hour-	(EST)	(EST)
Electronics Command	1200 and 2400 hours	(EDT)	(EST)
Munitions Command	1300 hours	(CDT)	(CST)

It normally takes 3 hours for the electronics world to get your request to the NICP. But, if your DSU plans it so your request starts its trip 4 hours (instead of 3), ahead of the NICP starting time—you can be sure that 90 percent of your requests will make the computer run they're aimed at.

PS MORE

IN SUPPLY... YOU'RE THE STARTER

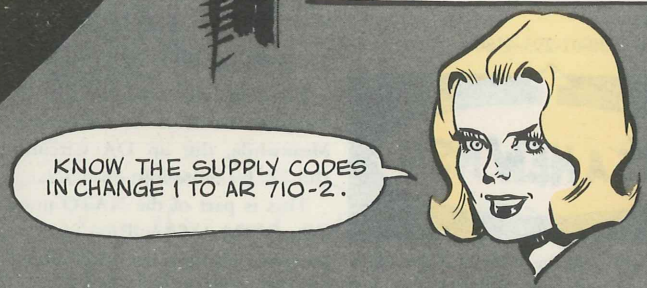


4. Play fair. High priority codes are authorized for special or emergency needs only. Never use 'em on routine requests. You bottle-neck the high priority issue SOP, you short-change yourself, and waste work, time, and money all along the supply line.

5. Read your status cards carefully. Follow thru on 'em. They're from your DSU, or an NICP, and they bring you important scoop on your high priority request.

These points apply whether your DSU is filling your request from its stocks, or it's sending your request to an NICP for action.

Learn your supply SOP. Work with your DSU. They've got the answers for timely, better all-around supply action.

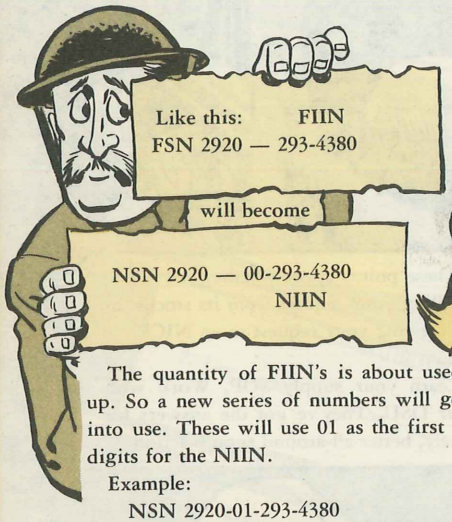


NSN TO REPLACE FSN

Like old soldiers, Federal Stock Numbers (FSN) will soon fade away.

In their place will be National Stock Numbers (NSN).

The change will be real easy. Two digits will go between the old group-and-class (first 4 digits) and the Federal Item Identification Number (FIIN, the last 7 digits). Those last 9 digits then will be called the National Item Identification Number (NIIN).



The quantity of FIIN's is about used up. So a new series of numbers will go into use. These will use 01 as the first 2 digits for the NIIN.

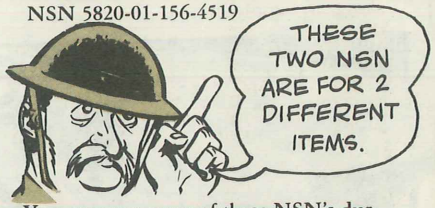
Example:

NSN 2920-01-293-4380

When you see the new 13-digit NSN you'll know it's a former FSN if it has 00 after the first 4 digits. It's a new NSN if it has 01 there.

NSN 5820-00-156-4519 (Former FSN)

NSN 5820-01-156-4519



You may see some of these NSN's during 1973 and early 1974. Don't let 'em bother you. They'll be appearing in new manuals and on some packages of parts and supplies.

You'll get the word to start using the complete numbers in September 1974. Meanwhile, dig up DA Circular 708-3 (Jul 72) for more info on NSN.

This is part of the NATO numbering system. The U.S. will use 00 and 01 for the first 2 digits of the NIIN. Other countries use other digits, like 23, 24 and 27.

DEAR CONNIE OR BONNIE: I would like PS Magazine to run an article about (describe your organizational maintence problem):

_____

_____

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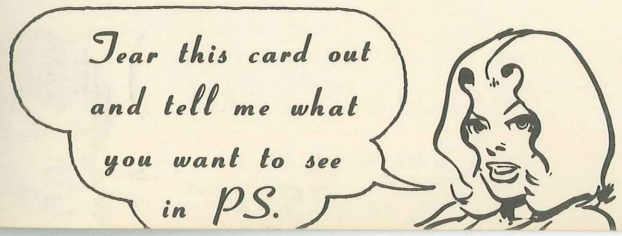
_____

I am in ___ CONUS; ___ Pacific Area; ___ Europe; Other ___

Want a reply?
Give us your name and address:



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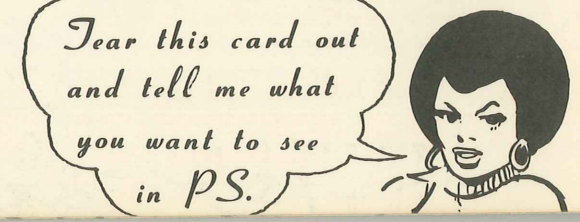

Connie's Mini Mini's

Eyeball The Pitot

When you're eyeballing your Chinook (CH-47A) during the PM Daily, bird mechs, focus in on the pitot tube. Check the tube for damage, obstruction, and security.

New Anti-Seize

You bird mechs can get a new anti-seize compound now. FSN 8030-087-8630, MIL-T-5544, will get you a 1-lb can. Save yourself some sweat and elbow grease on your turbine igniter and recip spark plug removals. Dab it on the threads when you install 'em. TM 55-2840-230-24 is picking up this compound.

Tip On Plugs

Do spark plugs bug you? They go bad, and new ones are hard to get? Then, you need to read and heed TM 9-8638 (Dec 56) which is all about spark plugs and how to take care of them. Order copies for your mechanics today; send your DA Form 17 to the St. Louis Publications Center.

Multifuel Cable

If you're digging for a handbrake cable for your multifuel 2½-ton cargo truck (with an Orscheln brake) your search is over. Order under FSN 2530-088-9205. It's listed only with P/N 11609834 on page 266 of TM 9-2320-209-20P (Oct 72).

Sample This Flick

Hold one, bird mech! Ask your maintenance officer to schedule a showing of movie, MF 55-5729, for all knuckle-busters in your unit. The procedure for taking engine SOAP oil samples is demonstrated—in color no less.

Module Packing

When you're packin' modules for turn-in be individualistic. Like, pack 'em separately. If you have to put 'em in the same box, separate and cushion 'em. Use cardboard, rags, styrofoam . . . whatever you have. But cushion 'em . . . and go mod, go!

Pol Test Disk

It'll now be easier to make your 30-day filter/separator performance tests required by para 6-17 of AR 703-1 (Jan 71). Instead of a bulky sample container, you'll be mailing in a small disk. It's called the micro force filter disk, FSN 6640-436-9920. SB 700-50 (Oct 72) is your authority.

Rollin', Rollin'

You can use the tube-type or the tubeless tires on the Model R-13 towed roller. Get the 4-ply, 750-15 tubeless with FSN 2610-051-0700 or the 6-ply, 750-15 tube type with FSN 2610-060-9947. The tube has FSN 2610-051-9208. This tube can be used in the tubeless, you know.

☆U.S. GOVERNMENT PRINTING OFFICE: 1973 - 759-504/9


SB700-50
TAKES THE SWEAT OUT OF GETTING EXPENDABLE SUPPLIES. IT'S LOADED WITH "AUTHORIZED AS REQUIRED" ITEMS.
EXPENDABLE ITEM
SB 700-50
SUPPLY BULLETIN
EXCEPT MEDICAL, CLASS V, RE
PARTS AND HERALDIC IT
HEADQUARTERS, DEPARTMENT OF THE
TRY SB700-50, YOU'LL LIKE IT!