

ONE LOLL



Stop a minute.

Army equipment maintained right? Why do you have to keep your

sense, too. guys. Most will make right good get lots of answers from different Ask around your outfit and you'll

Both must be in good shape . . . ready fight and win: Men and Equipment. for combat. has to have two things before it can Soldiers know that a Modern Army

and other gear and how to do your unit are in good shape. You keep So, physically and mentally you're training on how to use your weapons physically fit, and you get plenty of part in various tactical operations. You and the other men in your

> or down the line if the radios and mo and commo gear where it has to only your feet; besides how would communicate. Your weapon won't be telephones conk out. So, you see, it be? And you won't get the word up much good with a busted firing pin. outfit is one that can shoot, move and equipment to make a fighting outfit. takes top-notch men and top-notch you get heavy equipment, fuel, am-You won't move far very fast with Now, your equipment. A winning

will tell if you win or lose. tenance you do on your equipment The kind of operation and main-

So, stop a minute. Think.

nance you do now keep you going Will the operation and mainte-



Issun No. 151 1965 Series THE PREVENTIVE MAINTENANCE MONTHLY IN THIS ISSUE

FIREPOWER 2-11

M2A1-7 Flame Thrower M4 Service Unit Day/ Crockett M60A1	
55.22	
MI09 SP Howitzer Optical Equipment M60 Machine Gun M1, M14 Rifles	
00000	

	===	Equipment MGO Machine Gun MI, MI4 Rifles	a5.
--	-----	--	-----



Spark Plugs Filters 5-Ton Truck M62 **GROUND MOBILITY 12-19**

- 16	15, 17 N		
	MILITARC	MITTAL Stop	STATE OF THE REAL PROPERTY.

MILIBRO	MITTAL Scort	
122	IIDO	



222222



Teffon Hose OH-Z3F TWX Recap U-JA U-BF Tool Kit





Automa Jacks 42 AN /990-3, -10 43 R390 / JURI R390-4 44 AN /TRC-24 T-302/TRC 45 PU-126

COMMUNICATIONS 37-47



Replacing Parts 37 SB-86/P 38-39 S-36 Shelter 40 Teletypewriter 41 V-17-V-18 41 AN/VRG-24 42

Paint	Gasoline-Soluble	Star Decals	EIR Digests	DA Form 2028	Corresion	GENERAL
15		57	56	55	48-54	AND
M17 Mask	MIS Mask Ca	M1937 Field I	M1958 Portat	Kurz & Root C	John Generato	SUPPLY
63						48-63
VI,		U	11			

14, 17, 18, 19, 23, 40	5		
	ì		

DA Form 2064 ID Plates 3KW Generator





40121



Even when everything seems to check out OK . . . does the M7 gun on your M2A1-7 portable flame thrower still suffer with run-away problems?

Well, could be its barrel-and-inlet body assembly is stuck . . . stuck with an out-dated packing retainer.

Here's why you can suspect retainer problems:

Your gun could have packing retainer, FSN 5330-292-9894, which is being washed out of the system. Reason being that under some conditions the retainer doesn't support the molded packings well enough. And, when the packings aren't held firmly in place they can cant when the pressure's applied, and cause the needle valve to stick open.



The latter retainer works a lot better, but it must be installed right. It's chamfered on both sides, but the widths of the chamfer are different. You have to know that the side with the wider chamfer faces the packings. When the packings and the retainer are assembled you can easily see that only the wider chamfered opening (approx 1/32-in wide) will let the retainer scat properly in the nested, molded packings.

If this retainer is installed backwards the packings won't be properly supported, and they'll jam up the works when you apply the pressure.



Its 1/4-in-long neck stabilizes the packings . . . keeps 'em straight when pressure is applied.

And, too, when your flame thrower's gun has this retainer, installation problems will be out the window. 'Cause with its distinct design, all you have to do is check that its neck rides inside the springs.

This packing retainer (FSN 5330-045-1990) will eventually take over completely . . . when stocks of the neck-less retainer (FSN 5330-968-7222) are all gone, that is.



DRAGON

Sure an M4 service unit'll feed of your M132 (10-8) self-propelled flame of thrower. But, before you sidle up for of service, be sure the M4 carries the spe-

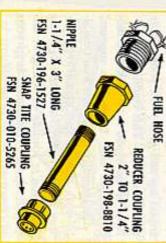
ed cial fuel and air hose connectors it ne needs to service the M132's, M10-8 or flame thrower system.

fittings (used for servicing the M7A1-6 SP flame thrower) must be swapped for feeding the M132.

Without these new fuel and air hose connector fittings, an M4 service unit cannot . . . service your new self-propelled flame thrower. The fittings are available through normal supply channels, and they'll be

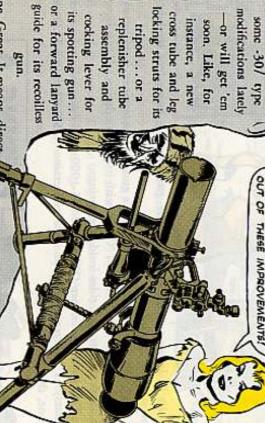
stashed in the service unit's accessories

box just waiting for you to call.



AFTER-THE-MWO

Crockett's been given More than likely your modifications lately M28 or M29 Davy or will get 'em some -30/ type soon. Like, for BUT, NOW, IT'S YOUR TURN. HERE'RE SOME TUPS
TO HELP YOU GET THE MOST OUT OF THESE IMPROVEMENTS



cross tube and leg

instance, a new

Fine. Great. It means direct gun.

cocking lever for

replenisher tube

assembly and

tripod ... or a

support's on the ball.

WANO 8-1000-209-30

strictly a job for support. and leg locking struts applied through loose, don't try to tighten it. That's to your M28 should happen to work MWO 9-1000-209-30/7 (22 Jul 64) First of all, if the new cross tube

Here's why: If one gets loose



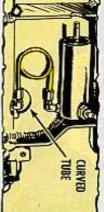
means a tricky re-adjustment deal atchine screw. Unless this screw's adrear tripod leg with a 3/8 x 11/2-in mataching the cross-tube assembly to the tripod leg and grab some poor Joe by ment, Like said: Leave it to support! lapse of the tripod at an awkward mothe trouser leg. This could cause coljusted to just the right height, the cam lock handle might stick out from the Incidentally, these parts won't usual-

ly work loose if you give Davy halfbig feet away from the tripod. ting it up, ch? Especially, keep your when you're loading or toting or setway decent protection. So, easy there

WWO 9-1000-209-30/8

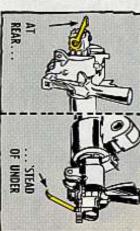
age, easier cocking, and so on. provides more convenience, less breakkit reduces the number of parts . . . and 1000-209-30/8 (4 Aug 64). The mod jackpot when support installs MWO 9. You guys with M29's sure hit the

f'rinstance, lets you borcsight the spot-The curved rolled replenisher tube,



broke before it'd cooperate. stainless steel which flexes easy-not ting gun without even touching any aluminum tube that often cracked or like the old straight-type fragile offset assembly. In fact, lockscrews now replace the screws you used to have to pesky screws on the side of the bracket loosen. The new curved tube's made of

> ism 'stead of down under. But, even Davy a favor by putting the cocking though the lever's better protected, you lever at the rear of the firing mechan-It goes without saying that they did



dropping Davy. still have to be mighty careful about

the recoil cylinder during PM on the plug when draining the recoil oil from worry your handsome head about this. hole in the outer tube-but don't you recoil assembly. It's still support's job to remove the The MWO also re-tapped the drain

MWO 9-1000-209-30/9

up lanyards or busted triggers after support applies MWO 9-1000-209-30/9 (4 Aug 64) to your M29. The for-You won't be bothered with tangled



of trouble and the 31/2-in spread beward guide assembly keeps the line out

tween the beads on the rear of the ing recoil of the spotting gun. lanyard guide allows enough snap dur-

a 3½-in space between the beads. If not, get yourself a new lanyard with FSN 1010-885-5743. Just you be sure, though, that there's

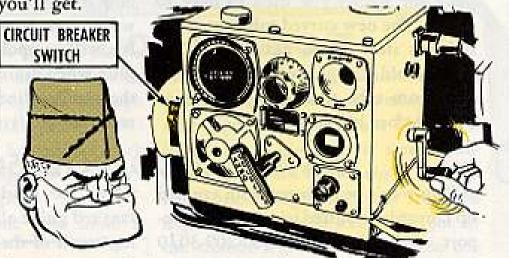
his new parts. to keep him happy by taking care of along with after he's been MWO'd. Try Yep, Davy's an easier guy to get M60A1 TANK GUNNERS ...

YES NO = NO GO



Sure, any gal may say nay and mean yea and get away with it. But, gunner, ol'boy, just you try saying go and whoa at the same time to a mechanical critter and see what a mess you'll get.





Something's bound to give. And nine times out of 10 it'll mean a busted capscrew in the main gun super-elevation adapter . . . on the actuator shaft to the flexible shaft from the computer.

Yeah, it's only a capscrew . . . FSN 5305-043-1487 . . . but it's in a hard place to get at.

So, save yourself some gosh-n-swear and wear-n-tear. Make it second nature to check first to see that the main gun's not fastened down before you try that super-elevation bit.

NEXT BEST THING



Our outfit has graphical firing scales for the towed 155-mm howitzer, which would be all right except for the fact that we do our shooting with the M109 SP 155-mm howitzer. And we can't latch on to any scoop that'll tell us how to get the scales we need.

What say you?

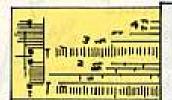
CWO W. E. B.

Dear Mr. W. E. B.,

I say that you and other M109 shooters are in the same fix, but it's one you can get out of thusly:

As a temporary deal get paper scales that can be glued on the towed howitzer scales and then coated with plastic spray.

The paper scales can be had for the asking by writing to:



Commandant
US Army Artillery & Missile School
ATTN: Graphics Br, R&A Div
Fort Sill, Oklahoma 73504



The regular scales will show up in the supply system soon.

Half-Mast



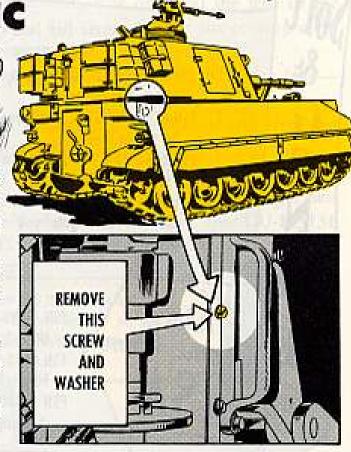
"THAT #@@ GCREW"... "OUCH"
... OR "SON OF A GUN!"

No matter what you say after you've done it, you sure can skin your knuckles when operating the rammer tray in your M109 SP 155-mm howitzer.

There just happens to be a screw under the handle—in the perfect spot for you to bust your knuckles.

You can beat the problem, tho. Take out the screw and washer that goes with it.

Howitzers that'll be hitting the field will be minus the screw and washer.



The ISSUE TISSUE'S the Issue,

0

clear pictures is a must. You know it. The same's true for a good view in fire-control equipment.

The way you do that preventive maintenance chore is real important. The wrong way can put your lens right out of the picture, And maybe you, too.



What you never use on the lens of a camera, projector, binoculars, gunsight or what-have-you is a silicone-treated lens tissue. Silicone is an abrasive, but there's more on that later.

The big point here is to stick to the lens tissue. Eyeglass and other tissues can do more harm than good.

Don't settle for less than these:
LENS, TISSUE

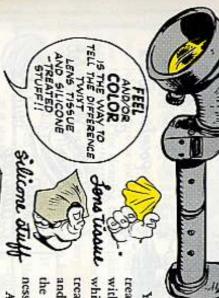
FSN.6640-393-2090, lightweight, 100 3x5-in sheets FSN 6540-597-6745, heavyweight, 50 4x6-in sheets

FSN 6540-285-4694, light-heavyweight, 100
7x11-in sheets, Fed Spec UU-P-313E (Be
sure to have the spec number here, because
the FSN also gets you silicone-treated
tissue)

BUHNED

LENS, PAPER
FSN 6640-559-1385, lightweight, Fed Spec
UU-P-313E, Type V, 100 7x11-in sheets
FSN 6640-559-1384, heavyweight,
100 7x11-in sheets
FSN 6640-285-4694, heavyweight, wetstrength, 100 7x11-in sheets

So ... Please Don't Scratch Your Glass



You can tell lens tissue from siliconctreated tissue by feel, or, in most cases, with a glance. Lens tissue is soft and white or cream-colored. Most siliconetreated stuff has a blue or purple tint and a brittle, polished surface. Some of the silicone paper is white, so brittleness is the clue.

Also, "silicone-treated" is stamped on the package, just as "lens tissue" is stamped on the envelope or pad it comes in.

TACATES

NO SCRATCH, BITE OR GRIND . . .

The soft, absorbent lens tissue won't scratch, bite or grind the lens or the coating of magnesium fluoride on the lens. Silicone can wear the coating clear off and scratch or wear the uncoated lens.

But first, before you use the tissue, blow the dust, grit, etc. from the lens—with a syringe if you have it.

A fine camel's hair brush works great in getting stubborn dust and dirt from a lens. The tissue is for the big cleaning and polishing job.

If you get a tough smudge, the tissue may even need an assist from a lens cleaner such as FSN 6750-408-5175 or FSN 6750-737-0811. You can get best results from the cleaner with tissue FSN 6640-559-1385, Fed Spec UU-P-313E Type IV or Type V. Types I, II and III are for "dry" cleaning.



One caution: Never use more than a drop, and never put the cleaner directly on the lens. Put it on the tissue so's you can avoid a dirt-collecting film.







FIRE CONTROL OPTICS

Fire control equipment lenses call for an additional step or two, so peel an eyeball thisaway a while.



St -

First, d'on't forget to add that Fed Spec number on tissue FSN 6540-285-4694 and elsewhere as mentioned, so's you don't get the silicones.

nd

Also, on fire control stuff, the wheels like tissue FSN 6640-559-1385, UU-P-313E, type V for best results.

Also

As for tissue FSN 6640-559-1384, use it when you can't get cotton for those stubborn films and stains. You might also grab a look at TM 9-254.

And, Joe, alcohol is the preferred cleaning liquid for fire control optics. In the field, except in freezing weather, you can use Cleaning Compound, optical, lens, liquid, FSN 7930-227-1887.



Never let dirt dirt on unused up.

lenses. while give it a while give it a while give it a lossue.

Lont use your fingers on lens

KEEP
"GLASSES,"
CAMERAS
AND SIGHTS
BOXED!!

your fingers could stain permanently.



Keep folding cameras folded when unused.



SMALL ARMS TIPS



Would'ya use steel wool or crocus cloth to clean your jalopy's chrome job? Heck no, you say. Well, same thing goes for cleaning the gas piston on your M60 machine gun. The piston's chrome plating's only skin thin and'll soon wear away if you use rough stuff. This'll leave it wide open for a case of corrosion—and an untimely death. If the piston slides easy-like, you don't even have to clean it a-tall.



MORE DUAL-DUTY ITEMS

Here're two more interchangeable parts for the M1 and M14 rifle that you can add to that pin-up in your arms room . . . the one published in PS 145.

EXTRACTOR, Cartridge FSN 1005-554-6003 (5546003)



PIN, Straight-headed, Trigger FSN 5315-501-3669 (5013669)

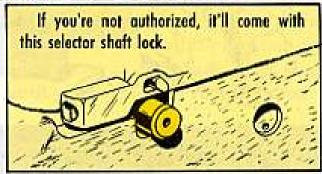


Like all the other items on the pin-up, you'll find the M1 parts in TM 9-1005-222-12P/2 (21 Aug 61) and the M14 parts in TM 9-1005-223-20P (16 Mar 62).

YOUR CO DECIDES

Been wondering about the selector lock (FSN 1005-856-7587) of your M14 rifle's -20P manual? Forget it. Ain't no such animal — and never was.

If you're authorized automatic fire, like it says in para 6 of Change 1 (22 Jan 64) of your -12 manual, your weapon'll come to you with this selector.



Your local CO decides how many selectors should go to a unit.



THERE MAY BE

IN ER YET

handle spark plugs. gals, but there's only one right way to Every guy has his own SOP with the

... or hard starting are signals to eyeout and ram in a set of new ones. ball them plugs. Don't just throw 'em firing . . . spark knock . . . poor idling usually every 6,000 miles. But, mis-Reg'lar inspection comes first-

WARENCH THE PLUG (WITH RIGHT SIZE PLUG WARENCH ... NO PLIERS OR OPEN-END WRENCH) BLOW OUT ANY DIRT THAT MIGHT FALL INTO THE ENGINE!



end of each plug with a solvent (FSN 6850. 264-9066) to get off any gooey-type touling Then, take 'em out and clean the electrodi



and other crusty stuff. This'll make 'em work pressed air, give 'em a go-round on the cleanbetter if they're still good, and it'll uncover ing machine. This blasts off the hard carbon whatever defects are there After you dry the plugs with a shot o' com-





a fine file or sandpaper. . after smoothing off the electrodes with



BE CAREFUL, THOUGH LIKE IT SAYS



in reaching a verdict. If they test GOOD, they tester reads REPLACE, it means just that case there's a shortage of new plugs. If the test only FAIR, they're better than nothing, in go back on duty in the engine. Even if they you aught to give 'em the benefit of a doubt Then they go on trial in the tester—and

> to make sure you've got what the TM calls for. used or new plugs. And—you use only new gaskets with either When you put in new plugs, double-check



out next time ground. threads will make it easier to get the plugs A tiny bit of anti-seize compound on the

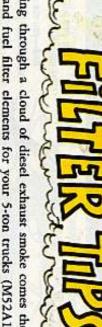


and see what it says. other, too, so just pull out TM 9-8638 spark plugs is too easy a job-and too the routine is just as important as the important—to let slide by. Each step in Regular preventive maintenance on

until you're sure they're really shot adjustment, so don't junk spark plugs if all it needed was a little cleaning and toss out your truck or even its engine Keep in mind, too, that you wouldn't

SURE YOU SOT THE RIGHT ELEMENTS.

GUYS SURE YOU IN THE RIGHT WANUAL



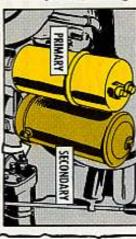
Like the sun breaking through a cloud of diesel exhaust smoke comes the straight dope on oil and fuel filter elements for your 5-ton trucks (M52A1, M54A1).

You've probably noticed, in checking TM 9-2320-211-20P, that the filter element FSN's mentioned are for the gasoline-operated trucks only.

So here're some diesel digits and filter facts:

OIL FILTERS

In ordering the element for the front, or primary, oil filter, ask for FSN 2940-580-6283.



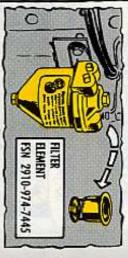
The rear, or secondary, oil filter element is FSN 2940-141-9026.

Be careful in servicing the primary filter. Be sure: The spring is seated correctly at top of case; the scaling cup is properly located at the top of the element; and that the base plate scal is properly seated.

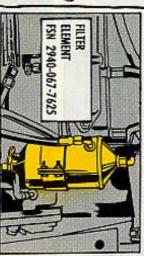


7

There're two fuel filters, too, of course. The primary fuel filter is located under the left frame side rail. The element comes under ESN 2910-974-7445.



To get the element for the secondary fuel filter, located on the left side of the engine, ask for FSN 2940-067-7625.

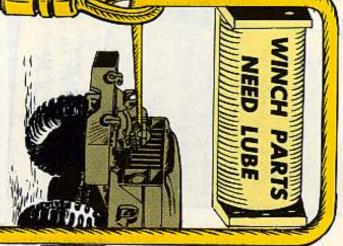


FUE FILTERS

Daily, before the engine is started, you drain the primary fuel filter. If any water or crud comes out, drain the secondary filter, too, to make sure none of that stuff gets through to raise cain in the fuel injection system.



If you find anything besides fuel coming out of the secondary filter, sing out for your organizational mechanic to change both filters. It's important, especially when changing the secondary filter, to prevent dirt particles from getting into the fuel-to-injector pump.

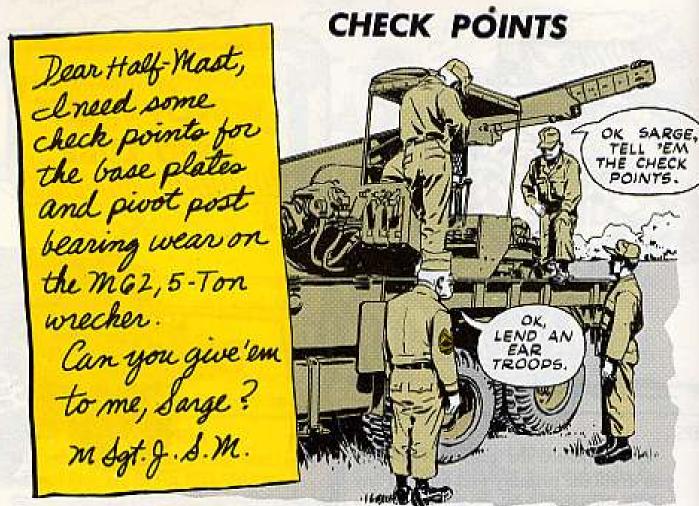


Proper oil Ievel in your 5-ton, 6 x 6 truck's front-winch endframe is just below the drum seal. This's so the oil won't leak out thru the seal when the winch isn't bein' used.

This means the shaft, jaw clutch and other parts above the oil level are sittin' high 'n' dry as far as lube's concerned. Unless oil gets up there once in a while, those parts rust and the whole works get stiff — or even paralyzed — or ruined.

Operation is what gets the oil up there.

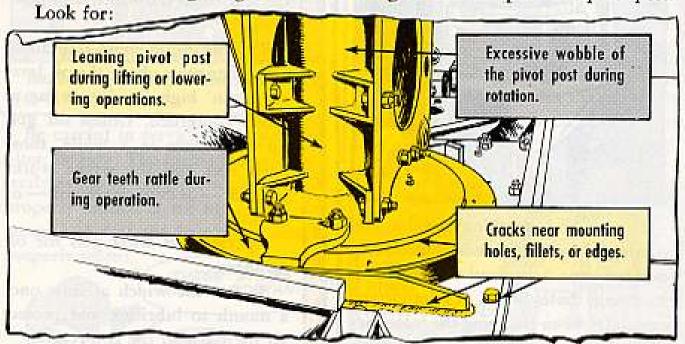
So run the winch at least once a month to lubricate and protect all the parts in the end-frame.



Dear Sergeant J. S. M.,

First off, it's next to impossible to come up with a go no-go system of measurement in that area. Wear on the roller bearings would be nil due to their durable quality.

But, here're some good guides for checking out the base plate and pivot post.



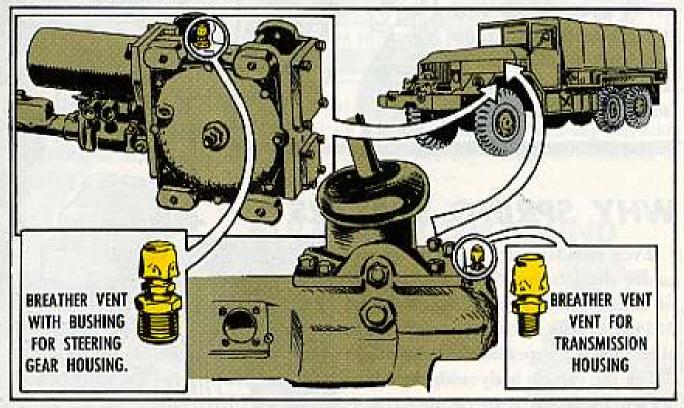
Check these out for size. Any one of these is enough to request immediate repairs.



You may have one o' those 5-ton trucks that came through without breather vents on the transmission and steering gear housings. This'll most likely be found on those vehicles furnished on Contract DA-11-022-ORD-4235.

If built-up pressure isn't relieved, you may find the shaft and control valve oil seals popping.

You need two breather vents and one bushing. The Breather (Vent) Assembly (5196397), comes under FSN 2520-287-4673, and the Bushing (444027) under FSN 4730-640-6530.



If your truck doesn't have these breather vents, you'll find plugs where the vents are supposed to be. The only difference in installing the two vents is, the bushing goes with the one on the steering gear housing.

CAPS ARE BUM





Ignition trouble with the M37B1 ¾-ton truck may be traced to a distributor cap that's too thick on the coil side. This tears up the insulation on the primary circuit wire from coil to ignition points. Also, the spring and carbon pile retainers in the cap are loose. These bum caps came through on Contract Number DA-30-069-ORD-3520 and are to be turned in.

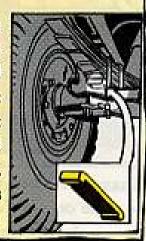
If you need a new horn contact insulator for your 3/4-ton truck, sound off. It's at your supply depot waiting for your requisitions. Ask for FSN 2590-575-2399. It's for the SNL G741 series trucks. That li'lole' insulator will come truckin' on down, and then your truck'll be soundin' off like it should.



SOUND

WHY SPRING SPACERS?

Ever wonder why there're spacers under the left front and rear springs of the ¾-ton M37, M37B1, M43 and M43B1 trucks but none on the right side? They compensate for the slight list in the vehicle body with the added weight of the spare tire on the left side. For either front or rear, the spacer is listed as FSN 2510-737-6829 (G741).





M114A1 PILLOW BLOCK TALK



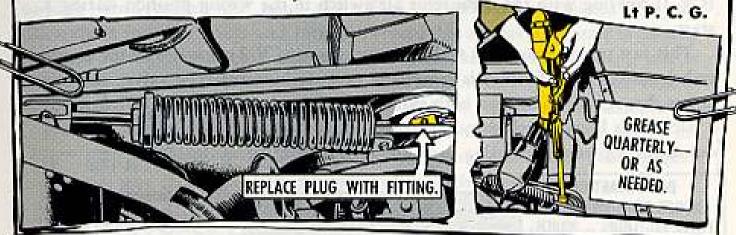
Dear Editor,

We've been having a problem with our M114A1 Shootin'-Scooters. The rear fan shaft bearings freeze up in the pillow block. This happened to 3 out of 5 of our M114A1's, so we had to come up with a solution.

We replaced the plug in the top of the pillow block, with a standard 45° angle grease fitting and pumped GAA into the bearing until it started coming out around the edge.

We repeat the treatment quarterly—or oftener if needed.

This works fine for us. In fact, it has cured our maintenance headache better than a whole bottle of GI aspirin.



(Ed Note)—Sounds real great . . . but help is on the way. The fan shaft bearing is being replaced in new vehicles by a different fan shaft bearing assembly which has a lube fitting and a seal. The new bearing should be available in Supply soon.

M113 PC CAULKING COMPOUND

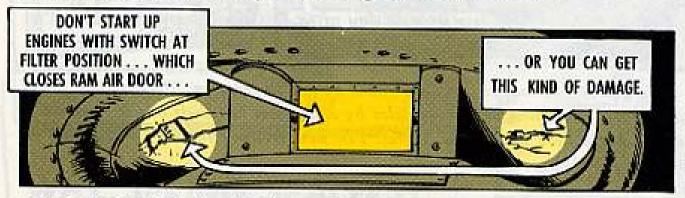
Some of your M113 PC's deadlined because you need caulking compound to seal the grill door after changing an engine or radiator? Well, don't sweat or fret, just order general purpose caulking compound, Type 1, Spec MIL-C-18969, FSN 8030-577-4741 for the one-pint container. After you get all the old sealing compound off the hull and grill door surfaces you put on the new, using enough on the grill door contact area to make sure the seal is watertight. Page 65 of TM 9-2300-224-20 (Dec 61) clues you how to install the grill.





The engine backfired—just once! But that was all it took to tear up a Caribou (CV-2) cowling with the carburetor air switch in the wrong position during a start.

This just proves you don't want to start up your CV-2 engines with the toggle switch at FILTER. Since this closes the ram air butterfly-type valve, carb air enters through the filters on both sides of the intake duct. So the full force of a backfire is blown back through the filters with enough power to tear pieces out of the top engine cowling surrounding both oil cooler ducts.



Had the CARB AIR switch been at RAM position, though, the ram air door would've been open instead of acting like a baffle for the backfire.

Even when sand and dust have to be considered, it's safer to place both toggle switches in RAM position during starts. But if the area is extremely sandy or dusty, you'll want to flick to FILTER as soon as each prop begins sucking up gunk into the intake.

Generally, the best time to slam the ram door shut—by switching to FILTER
—is when your rpm is stabilized, you've gone to mixture and the engine primer
has been released, OK?

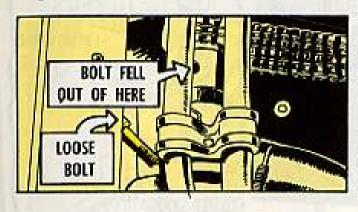
Now that you have the picture, you can see that backfires can be just as troublesome as sand or dust particles during starts.

USELESS BOLTS



A missing nut leads to a loose bolt. A loose bolt soon becomes a missing bolt. And a missing bolt leads to . . . trouble!

In this case the missing bolt hung around the scene to watch the action. What it saw was a Seminole (U8-D) co-pilot hand-feeding the nose gear drive chain into the down and locked position, so the driver could land the ship.



This missing bolt was the same one that was supposed to be holding the nose gear chain sprocket to the cross shaft torque tube. Even using the emergency gear handle didn't do much good with the bolt somewhere else.

Obviously, the self-locking nut called for in the parts manual would have prevented this aggravating state of affairs. But let's face it-that missing nut is hard to spot the way the torque tube is situated. So you've got to deliberately check out that tube when you're inspecting the rest of the landing gear during each PE.

After all, missing nuts can be embarrassing-not to mention flight safety considerations-when you're trying to run an airline without turbulence.

-19 CLINCHES LEAD



Murphy's found one more way to cause a false chip detector warning in your UH-19 . . . install too long a wire lead to the plug. That way the hanging loop can be pinched accidentally between the clamshell doors, and the light begins to flicker in flight. Clever . . . ch?

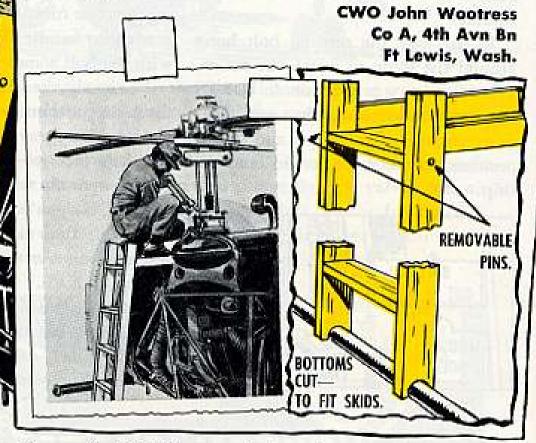
EASY CLIMBER

Dear Windy,

Here's one way to stop giving your favorite Sioux (OH-13) a boot in the engine basket. Make yourself a work platform like this one.

The idea itself isn't new—but the ladder attachment makes a more stable work area. By contour cutting the bottoms to fit the skids, the ladder acts as a brace for the outside end of the platform.

And joining them with two removable pins allows you to separate the ladder from the platform for easy storage.

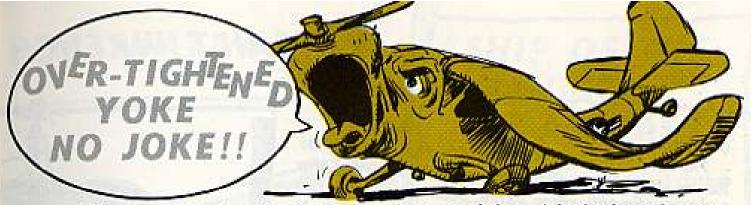


(That's a pretty nifty work aid. I'll just pass it along for any other unit that wants to make one.)

REPORT THAT OVERSPEED, PLEASE

Overspeeds are hurting our OH-23 engines. That VO-540 mill is red-lined at 3200 rpm and anything over that may point to future engine failure. This area is so critical that any overspeed above 3500 rpm automatically means engine replacement. The authority for reporting these overspeeds is . . . Message SMOSM-EELOH-23-09-1366 (18 Sep 64).

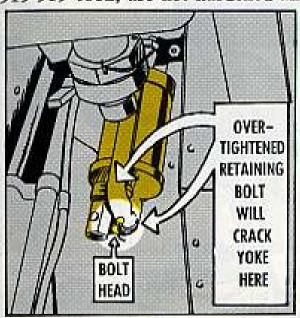




Webster says that a yoke is a clamp that embraces two other parts to hold them in place. But this embracing bit can be carried too far.

Take the ever-lovin' fuel strainer on your Bird Dog (O-1) engine.

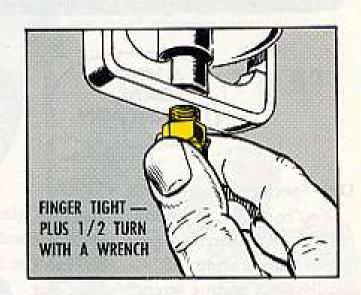
Sure you clean the filter element and make sure that the two gaskets, FSN 2915-515-4082, are not hardened and



have no defects. That's the only way you'll get a good seal.

But when you put the filter back together and tighten the bottom retaining bolt, make it finger tight plus ½ turn with a wrench. Any further tightening to stop a leak will crack the yoke, for real.

If leakage is still a problem new gaskets is your solution . . . no yoke.



YOU'RE ALLOWED A BREAK-

IN THE BRAID

The time to replace a Teflon hose is when its steel jacket has 2 or more wires broken in a single plait (braid)—or when 6 or more wires are broken in either the whole assembly or within any one-foot length, if the assembly is over 12 inches long. So sayeth para 7b of TB AVN 23-73 (May 64) . . . "Assembly and Inspection of Medium-Pressembly and Inspection of Medium-Presseries when the same and the same and

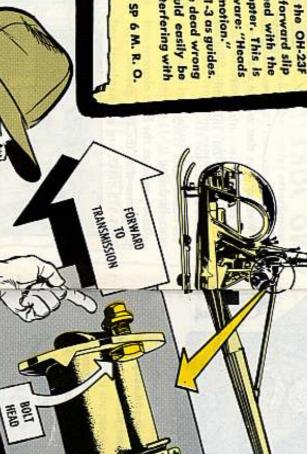
sure Hose and Hose Assemblies Tetrafluorethylene (Teflon)"... just in case





Raven shows the bolts connecting the forward slip against safety rules for aircraft hardware: "Heads heads toward the rear of the helicopter. This is joint to the tail rotor drive positioned with the up or in the direction of rotation or motion." TM 55-1520-216-25/1 (Oct 63) for the OH-23F

on the subject, since these bolts could easily be But somehow I get the feeling we are dead wrong any other part of the helicopter. installed the opposite way without interfering with We are using Fig 24-1-1 and Fig 24-1-3 as guides.



HISAWA

Dear Specialist M. R. O.,

OH-23's for the same reason. wrench. In fact, you're liable to find not a big shouldered issue-type torque proper-like the other way, leastways hardly lay a torque wrench to the nut these bolts facing aft . . . you can't pictures. And there's a good reason for bolts facing aft on some of the older You're right to follow those TM

safety rule you quoted generally has applicable." In this case, I would say two more words on the end: "... when official objection to reversing the usual dition involved here, there's been no bolt installation. For that matter, this Since there's no safety of flight con-

> a kattywampus angle. interfere with torqueing the nut, unless you laid the torque wrench in there at the slip-joint housing would definitely

steel and has a real slight oval, or eggnut. This one's made of lightweight to fit the smaller hex diameter of the old or all new nuts on the same slip across any, be sure to install either all being replaced with an MS21042-L6 member to reach for a 7/16-in wrench shaped, ID for self-locking. If you run joint assembly-for balance. Also, re-By the way, the old NAS679A6 is

And that's the way the bolt points.

SHIP OF THE 3-DAY PASS MONTH =

age good maintenance. passes. Not a bad way to encourords and the quality of work done dition of the ship, its log book reccommittee considers the actual concraft each month. The selection chanics are rewarded with 3-day winning ship's crew chief and meby the maintenance crew. Then the display on its best maintained air-"Ship of the Month" placard to Battalion at Fort Lewis awards a Company A of the 4th Aviation

RECAP THAT



How about that! messages. Copies are available all subordinate aircraft users and received on aircraft subjects. Then monthly "recap" of all TWX's certain Army depots send out a through their message centers. "recap" to see if they missed any maintenance officers can check the One Army headquarters and

Windy 25

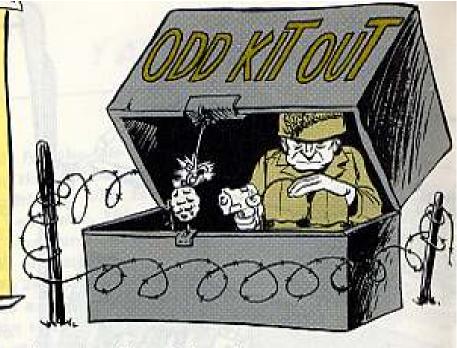
24

Dear Windy,

For some odd reason the tools in our Otter (U-1A) Engine Tool Kit, P/N C3-Y-8, seem to disappear.

Can you supply us with a list of what's supposed to be in the kit so we can bring it up-to-date?

Capt W. D. J.



Dear Captain W. D. J.,

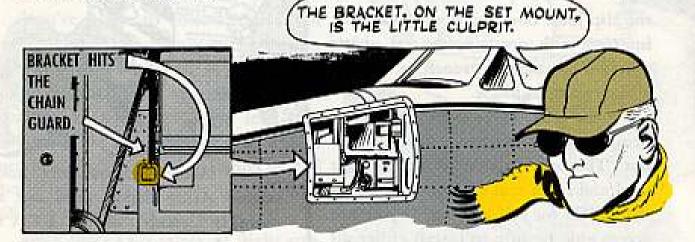
Some of the tools seem to have become collector's items!

Actually, most of the items are now carried in other tool kits and shop sets. The engine kit never was supported by the supply system and tools had to be requisitioned on an individual basis.

So-o-o . . . message SMOSM-ECU-1A-02-1342 (6 Feb 63) lets the maintenance officer remove the kit (if he chooses) from the aircraft inventory record, DA Form 2408-17.

UP AND OUT

It's a capital idea to be on your guard when you yank the RT 349 of your AN/ARC-55 out of a Seminole (U-8F). Otherwise, the nose wheel chain guard will take it on the chin!



If you try to follow SOP on a non-radar "Freddie" model by sliding the set out, the bracket will smack into the chain guard. 'Course a guard bent toward the landing gear chain would cause quite a stir.

So, don't be a loner when you yank the set. Get your buddy to lift the rear of the set while you lift the front—straight up and then out . . . misses the guard every time.

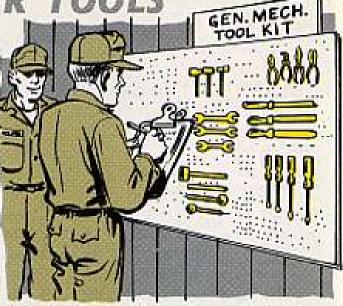
PEG YOUR TOOLS

Whoever said that "time was money" sure knew what he was talking about.

Say, for example, 20 mechanics in your outfit are due to have their general mechanic's tool kit inventoried. This chore takes the better part of a day, so multiply 20 by 8 hours and you get a total of 160 man-hours.

With your CO's permission you can cut the inventory time by 75 per cent if you'll latch on to a 4 x 8-foot sheet of pegboard, some common hardware brackets and nuts, and a suitable labeling or stenciling machine.

Put all the pieces together and when each mechanic fills the board it'll take only seconds to make the check. Using



this method 20 mechanics have been known to make the inventory in 2 hours flat . . . 40 man-hours.

The time you gain with this set-up can be mighty valuable—when you're on a tight maintenance schedule.

0-1 OIL LINES ...

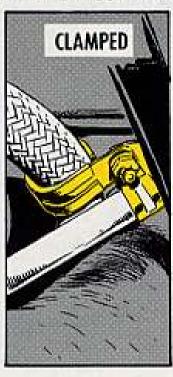
FOUR WAYS TO STOP A CHAFE

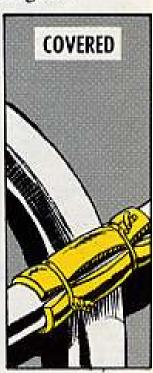
A free floating line from oil pump to oil sump just can't stay away from chafing against some other part of the Bird Dog (O-1) plumbing.

It's obvious that line has to be braced, laced, clamped or covered. For quality control purposes, a brace on the standard clamp support rates higher.









A selected list of recent publications of leterest to Organizational Maintenance Personnel. This is a list compiled from recent Adjutant Conscat's Distribution Center Bulletins. For complete details see DA Fam 310-4 with latest changes.

TECHNICAL MANUALS TM 1-H21-5, C1, Feb. (CH-21). TM 1-L19-5, C1, Jan. (O-1A). TM 1-OH13-5, Jan, (OH-13), TM 5-2330-216-15, Feb. Chossis, Troiler: 2 ly Ton; 2 Whi. TM 5-3431-213-15, Dec. Welding Mach, Ares Gen Inert Gas Shielded. Hamisthfeger DAR-300HFSG. TM 5-3810-227-20P, Jan. Crass-Shovel, Trk Mid: 20 Ton, American Hoist and Derrick 2360, W-2360. TM 5-3820-210-ESC, Nov. Washing, Screening Plant w/Conveyor Belt, 300 TPH, Electric, Pump, Cent. GED, 1500 GPM: Screening Unit Aggregate 75 TM 5-4210-244-15, Jan, Compressor, Reop: Air; 5 CFM; 175 PSI; Kellagg-American B-321-8, B-321-C. TM 5-4310-245-15, Jon. Compres-sor, Recip. Air, 2 CFM, 175 PSI; Kellogg-American G-321-PS. TM 5-6115-315-15, Dec, Gen Set, Diesel: 30 KW, Jetn MD-301815-WA. TM 5-6230-204-15, Feb, Searchlight: DC, 28-Volt, 100-AMP; Xenon Type; Infrared and Visible; Varo Mfg. Co. TM 9-1010-207-12, Jan. XM5 Armoment subsystems. TM 9-1400-461-20, Feb, G.M.L. M22. TM 9-1410-302-12P/2, Jan. Sargeont, TMP, Mul Operation & Moint. TM 9-1410-373-12P/1, Jan, Pershing, TMP, Ammunillon (other than Atomic Wpns], Msl Operation & Maint, TM 9-1410-500-12/P1, Jan. Howk, TMP, Mal Operation & Moint. TM 9-1430-250-12P/7/1, Jan. Nike-TM 9-1430-250-12P/2/1, Jon, Nike-Herc (Imp), TMP, Ground Con Equip. TM 9-1430-250-12P/10/1, Jon, Nike-Herc (Imp), TMP, Ground Con Equip. TM 9-1430-250-12P/11/1, Jon, Nike-Herc (Imp), TMP, Ground Con Equip. TM 9-1430-250-12P/12, Jon, Nike-Herc (Imp), TMP, Grownd Con Equip. TM 9-1430-256-12/1, Dec. Hike-Herc (Imp), TM, Ground Con Equip. IM 9-1430-377-12P/1, Jan, Pershing. TMP, Ground Handling, Spt & Swc Equip. TM 9-1430-503-12P/1, Jan. Hawk, TMP, Ground Con Equip. TM 9-1430-504-12P/1, Jan. Hawk, TMP, Ground Con Equip. TM 9-1430-510-12P/1, Jon. Howk, TMP, Ground Con Equip. TM 9-1440-500-12P/1, Jan, Hewk, TMP, Ground Handling, Spi & Syc Equip. TM 9-2300-224-ESC/6, Jan, Corrier, Peri. Pull Tr, Arnd, MI 13A1. TM 9-2300-224-ESC/7, Jan. Mortar, 107-mm, SP, M106A1. TM 9-2300-224-ESC/8, Jus., Corrier. Command Fost: Lgt Trk M577A1, TM 9-2200-224-ESC/9, Jon. Flame Thrower, SP, M132A1, TM 9-2320-209-10, Feb, Chassis, Trk: 2% Ton. 6 = 6, M44, M44A1, M45, M45A1, M45C, M46, M46A1, M46C, M57, M58, M38A1; Repair Shop, Trk MTD, M185, M185A1, M185A2; Trk,

Corgo: M34, M35, M35A1, M36, M36C; Trk, Dump, M47, M59, M342, Trk, Maint; V-18A/MTQ; Trk, Maint; 2 yi-Ten, 6 x 6, V-17A/MTO, Trk, Tank: Feel Ser 1,200-Gel, M49, M49C. M49CA1, Trk, Tonk: Woter 1,000-Gol. M50, M50A1, Trk, Tractor: M48, M275, M275A1, Trk, Yan; Exp, M292, M292A1, Irk, Von: Mil Fring Comp. XM472; Trk, Von: Shop, M109, M109A1, M109A2, M109C, M109D, XM567, Trb. Wrecker, Crone, M108, TM 9-2320-211-ESC/6, Jan. Trk Tractor, MS2AT TM 9-2320-211-85C/9, Jan. Trk Traclor, M52A2. TM 9-2320-211-ESC/11, Jon. Wrecker: M543A2. TM 9-2320-224-20, Jan, Corrier, Cond & Recon; Armd, M114/M114A1. TM 9-2330-208-ESC. Jon, Semitroller, Took: MIDIAZ, MIDIADC. TM 9-2330-272-14, Feb, Semitroller, Teak: Feel, 5,000 Gel, 4-Whl, M131A4; Semitroller, Tonk: Feel Serv, 5000 Gel, 4-Whl, M131A4C TM 9-2350-217-10, Nov. Howlizer, Lgr. S.Fr. 105-MM, MT08 and Howltzer, Med, S.P. 155-MM, M109 (2350-440-0811) TM 9-2350-217-25P/1, Jan. 5PH M108 and M109. TM 9-4910-438-10, Jon, Cleaner & Tester, Spark Flag. TM 9-4935-303-12P/2, Jan, Sergeant, TMP, Test Equip [Ord]. TM 9-4935-304-12P/1, Jan, Sergeanl, TMP, Test Equip (Ord). IM 9-4935-377-127/1, Jon, Pershing, TMP, Test Equip (Ord). TM 9-4935-461-15/1, 2, 3, Feb. G.M.I. M22. TM 9-4935-461-15/2, Feb, Enloc. TM, Test Equip [Ord]. TM 9-4935-461-15/3, Feb. Enloc. TM, Test Equip (Ord). TM 9-4935-501-12P/1, Jon, Hewk, TMP, Test Equip (Ord). TM 10-900-71, Jon, Rigging MG Roll-ing Whi-Type, 1,000-Gal Trans. TM 10-900-114, Jon, Rigging The AN/TF5-32 Roder Set in A-22 Corgo Bog and in the M37. TM 10-1670-226-22, Feb. Parachule. Cargo, BCAT Recov. 38-Pt Dia Mylae Caropy, MA-1 Cargo Parachule Beleinte. TM 10-3930-214-20P, Jan, Truck, IIII, Fork, Gas Clark Carloader D.751960, MHE 161. TM 10-3920-229-20, Jnn, Truck, Llft, Fei3, Ger. 15,000-lb cop, Clark Yardirir 150-53 RS MHE 151, TM 10-3930-255-10, Feb. Truck, UN. Fork, Elec. 2000-1b cap. MHE-197, Bobse FTD-020-EE. TM 10-8340-207-24P, Dec, Howk, TM. Tenloge. TM 11-5805-349-14, Jon, Nike-Ajak, Nike Herc, Nike Herc (Imp), Target Mst, Mst Manifor, TM, Telephone. TM 11-5805-249-25P, Jon, Nike-Ajos, Nike-Herc, Nike-Herc (Imp), Howk, Torget Mel, Mel Monilor, TMP, Tele-TM 11-5820-403-20P, Jon, C-2296 Intercom Sat. TM 11-5840-285-12P, Jon, Nike-Ajax. Nika-Harc, Nika-Harc (imp), Turget Mal, Mal Moniter, Howk, TMP, Rador-

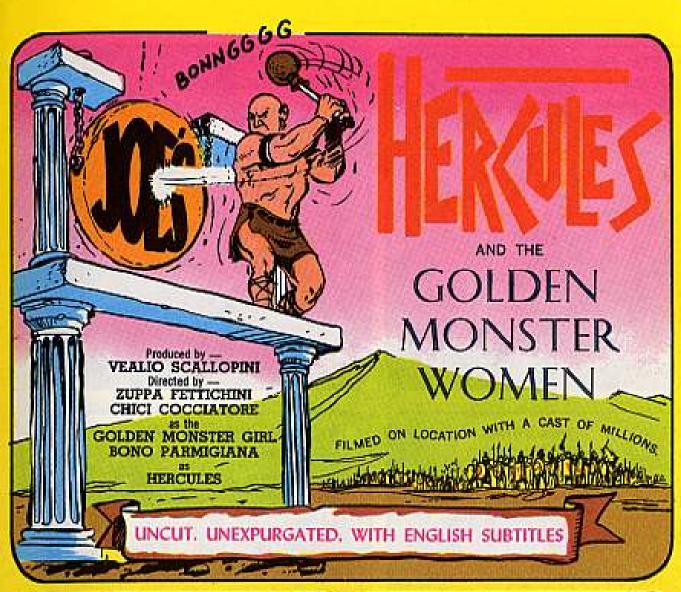
minol Set AN/MRC-102(V). TM 11-5935-203-15P, Jan, U-186A/G, U-186B/G connector. TM 11-6710-201-25P, Jan. Comero Set, Motion Picture K5-5(1), Comero. Motion Picture KF-2(1), Photog Accy Kin LF-1 [1], and LF-1 (2). TM 11-6740-215-20P, Jan. PH-680/U, Phoso Printer, TM 55-510, Jan, Amphib Lighter Operator's Handbook. TM 55-1510-201-20P, Oct. (U-8). TM 55-1510-202-20P, Sep. (O-1A). TM 55-1510-204-20P, Jon, (OY-1). TM 55-1510-206-20, C 6, Avg. (CY-2). TM 55-1510-206-20, C 7, Oct. [CY-2] TM 55-1520-203-20, C 3, Dec. CH-37A, CH-37B, TM 55-1520-204-20, C3, Jan. (04-13) TM 55-1520-209-10, Dec. (CH-47). TM 55-1520-209-10, C1, C2, C3, Feb. (CH-47). TM 55-1520-210-10, Cl. Jon. (UH-1) TM 55-1520-210-20P, Jan, (UH-1). TM 55-1520-211-10CL, C1, Jan, (UH-1). TM 55-1925-202-20P, C3, Feb. Marine. TM 55-1925-205-12, Dec. Marine. TM 55-1925-205-20P, C1, Feb, Marine. TM 55-1930-206-10, Jan. (LARC XY) TM 55-1940-204-12, Dec. Marine. TM 55-2350-200-12-1; Jan, Air Trans, How, SP, M108 & M109, in C-124. TM 55-5410-200-12-1, Jan. Air Trans of Shelter, S-141/G by C-119, C-123, and C-130. TM 55-5410-205-12-1, Jan, Shelter, S-144/G, Mounted on Trk, M37 w/Winch, Trans by C-119, C-123, or C-130. MODIFICATION WORK ORDERS MWO 9-1005-243-20/2, Feb, M6.

MWO 9-1440-301-20/5, Jan, Sergeont, MWO, Ground Handling, Spt. & Sve Equip. MWO 9-2300-216-20/4, Jan. Con. Field Ast, SP: 175-MM, M107, How, Hyy, SP: 8-In, M110: Biry Comp Door. MWO 9-2300-216-30/4, Jon. Gun. Field Arty, SP: 175-MM, M107; How, Hvy, SP: 8-In, MIID: Vent Hole Head-Hight Mounting Bases. MWO 9-2320-218-20/12, Jan. Trk. MIST; Inst Brake Spring. MWO 9-2350-215-20/23, Feb. Tonk, M60 and M60A1 Reinforcement of Amno Rocks MWO 9-2350-215-20/25, Feb. Tonk, M60 and M60Ali Removal of Quick Disconnect Coupling from Gen Mis. MWO 9-2350-217-20/1, Dec. Hewitzer, lgz 5-P: 105MM, M108, Howitzer, Med, S.P. 155MM, M109; Inst Pararamic Telescope (M117), Stow Box Bumper. MWO 9-2350-224-20/1, Feb, Tank, M48A3; Mad Gas Part Filter Fr. MWO 9-2350-224-20/2, Feb, Tank, M48A3; Relec Terret Pemp. MWO 10-1670-203-20/1, Feb. Parachute, Cargo, 15-Ft Dia Nylan Canapy. MWO 55-1500-200-34/1, Feb.

MWO 55-1510-201-34/5, C2, Jon,

(OH-23).

TM 11-5095-357-14, Jon, Radio Ter-









"This is going to be a tough operation -- so I want all gear gone over with a fine-tooth comb."



"All unserviceable equipment and parts should be sent back for repair."



"You heard him, troopers, let's go...combat ready is the word,"



detail knocked...I've got a

weekend pass working. . . "





"Hmm, knicked swordblade...but with a good handle...Ahh -- PH just pull this handle off and..."



"switch it with a busted one from a good blade...now, heh heh! support will do my blade sharpening chore for me!!"



"Rocco, you have cannibalized a minor fix into a major repair"..."So, let support swear."

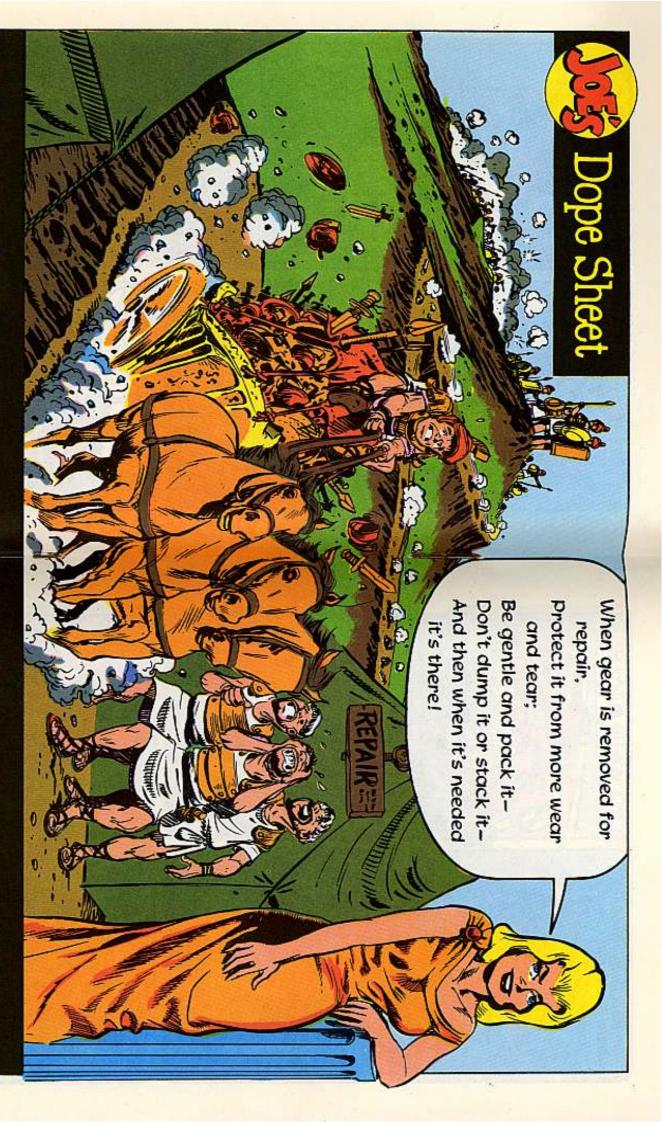


"Here, catch this basket of hourglasses and needle stilletos ...oops, you missed, Rocco!!"





"Yeah... Y'can pile them chipped siege stones on them deadlined lances."



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

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



"This charlot is okay, but the quiver rack seams need sewing"..."Take it off and send it back for repairs!"



"Ugh...It won't come off!! Them rusty hold-down bolts are rusted tight...get a wrench, Herc."



"Nah, why bother...here, let me! Just yank it off...Uh--Oh!!"



"Well, that does it for the rack...
Okay, send the chariot back, too!!"





"Tell them guys at support to hurry with these fixes... I'm usin' make-do parts... I don't want to go into combat in this shape!!"

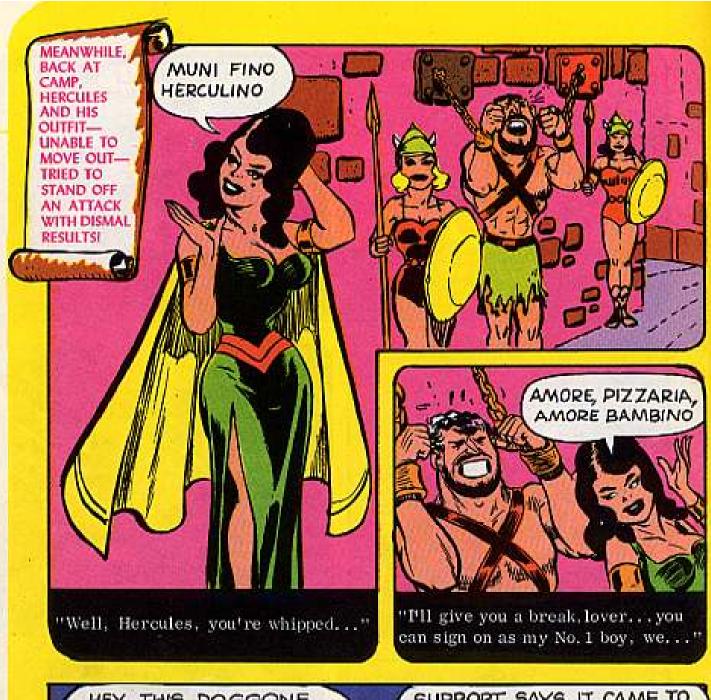




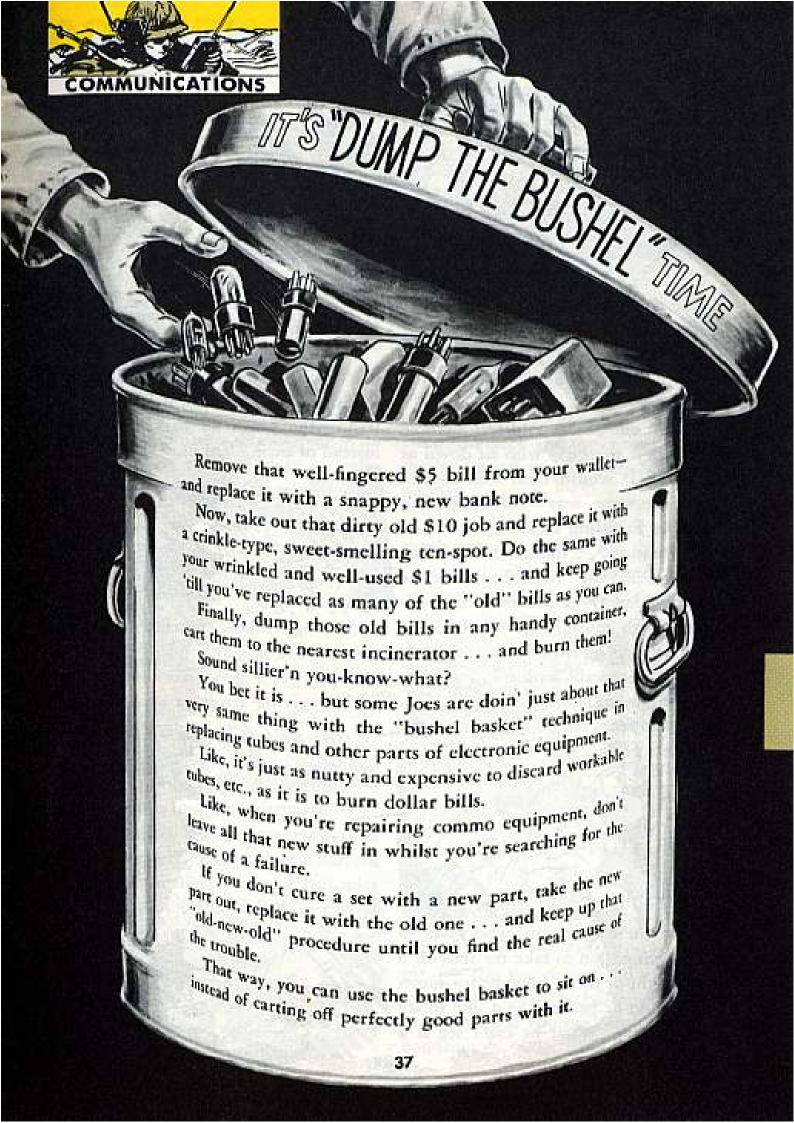
get a good goin' over at support."



"Fix in a hurry?? You're nuts...lookit this mess -- not a minor repair in the lot...and as for replacements, I'm stripped clean. Two outfits pulled this same deal on me...this is a full month's work!"







BE KIND TO YOUR SWITCHBOARD OR ...



female type-at work? You ever see a telephone operator—

equipment. ing switches, without bollixing up the ting in and taking out plugs and throw-She can move right along, like put-

and after handling a call. an SB-86/P would treat this switchboard the same way-before, during lot better if the guys who sit down at More'n one unit would feel a whole

a call . . . he grabs a plug . . . and the chomping away at a sandwich that's plug winds up sharing the seasoning. The stuff gets on his fingers . . . comes loaded with mustard or mayonnaise. who sits at the switchboard while plug gets pushed into a jack. Things go from bad to worse when the F'rinstance . . . there's the operator



thing to do or because he'd like to see signal light or three-maybe for somewhat's inside. What he can't see is a to the temptation to take the lens off a Then there's the guy who gives in

switch that can get fouled up by dust. lenses alone. And the dust is kept out by leaving the

letting the plugs fly back into place like having no lens at all. And if there's instead of easing 'em in. one sure way to smash a lens, it's by Having a busted signal lens is just



switches get a good workout as it is without giving 'em extra wear and tear. time of day is another bad deal. The Playing with the switches to pass the



take just so much twisting and knotmurder on the cords. The wiring can is another way to kill time. It's also Twisting the call and answer cords

wire through by itself if you double it

board. There's no sweat to getting the rubber gasket on the side of the switchwhen you try to push wires through the

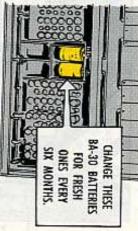
some wiring. This is what happens foul up the works when he is doing

A guy with a screwdriver can also

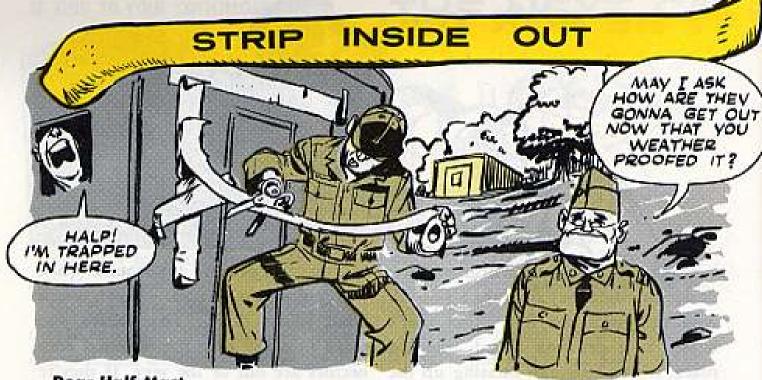


"etchings" on the log plate is really going off the deep end. the joker who uses a screwdriver to do plate. It's bad enough messing up the or doodle when they sit at the SB-86/P. log plate with penciled pictures, but handy as a drawing board-the log And they pick the first thing that's Some guys also get the urge to draw that's a good way to batter the contween the pack and the chassis . . . and not, the connectors can get caught benectors are out of the way. If they're what you're doing. That means you you replace a cord pack-if you watch nectors. want to make sure the terminal con-You can't get into any trouble when

to be used for a spell know that the switchboard's not going circuit-should be removed if you the buzzer, the other for the talking Those two BA-30 batteries-one for



can bust off if you get careless in your take it slow with those 10 BA-200/U latches that hold the batteries in place ply for the switchboard. That is, the batteries in the PP-990/GC power supyourself some problems if you don't removing the BA-30's, but you can buy handling of 'cm. There's no trouble in replacing and



Dear Half-Mast,

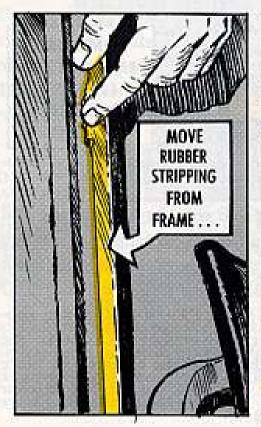
As you know, the rubber weather-stripping for the S-56 shelter doors is in a spot where the door latch and bar damages and wears it.

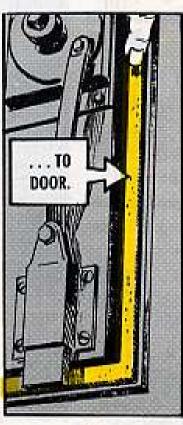
So wot to do?

We solved the problem by taking the stripping from the door latch side of the shelter wall and cementing it to the door itself. You've got to remove the rubber careful-like so's not to break it. It should be glued to the door with a good rubber cement, like FSN 8040-952-3520 (Adhesive, Silicone-Rubber, 5ounce tube).

The shelter's still weather-proofed (you'll never get that with damaged stripping), and the rubber wears a lot longer.

Sgt P. T. K.







THE CRACKED UP TT



Tryin' to read copy through a cracked view window on a TT-98/FG or similar kind of teletypewriter makes for bleary eyeballs.

The safety glass access window'll take a beating, but. . . . slamming 'er shut, puttin' strain on the pane by using one hand in an upper corner to close 'er, or using the window for an arm rest can crack it, Jack.

Close the access door by puttin' your paws at the upper corners. Use a little pressure with both hands at the same time. No sweat,

When cleaning the window with a damp cloth, wipe well but keep the weight off that wrist action.

The strain's not the same on the plexiglass windows. Their worst enemies are scratchy ring finger operators, pencil gougers, metal button scrapers and strong cleaning solvent users.

Solvents can give you a technicolor tint which makes it hard for the peepers to peer through the pane.

Best bet's to keep the communicator window crack-free by keeping the pounds and paws off it.

HOW TO EQUIP A V-17, V-18 TRUCK

Dear Half-Mast,

We're at loose ends in my unit about what equipment comes with the V-17 and V-18 telephone construction vehicles.

Can you clue us as to component parts and stock numbers?

100 C

5gt A. B. P.

Dear Sergeant A. B. P.,

Be glad to. TB SIG 331 (Apr 58) lists the equipment for the V-17A. TB SIG 332 (Apr 58) and TM 11-2320-200-12P (10 Jun 64) list the auxiliary equipment, parts and tools you need for the V-18A. Each TB has one change,

For the trucks, you need TM 9-8022 with changes and TM 9-2320-209-20P Half-Mast with changes.

THIS JACK CAN JILT YOU

What with the number of antenna jacks that've been around on various comm equipments these many years, you'd think it'd sink in that rough is NOT the way you treat 'em.

Not 50.

That stubborn antenna jack malady has begun to clobber a recent addition to the communications family, the AN/VRC-24 radio set.

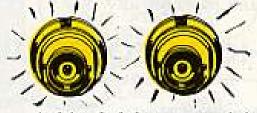
Some Joes grab at it for a boost aboard their vehicles . . . and land a-sprawl with jack and connector in hand. Or, they pile gear on it—or snag it with gear—and do just enough of a job to break the jack or crack the insulator.

The VRC-24 jack may be larger than most, but it's the same old material and gets the same old respect. Handle gingerly—not with ginger.



KEEP THE JOINT CLEAN, JACK





A shiny bright antenna joint or jack can make the difference between good and poor transmission and reception . . . and they make good checkpoints when the message isn't getting through to . . . or from . . . you.

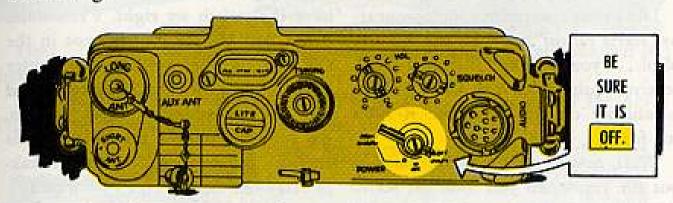
Usually, a coupla' brisk swipes with a pencil eraser'll do the job on a jack or joint.



Next time you're about to connect the battery of your AN/PRC-8, -10 radio set take a quick wink at the POWER switch.

The switch should be in the OFF position.

Connecting the battery with power on can blow the IF amplifier cans—among other things.



'Bout the easiest way to tell if you've blown the IF cans is to try the squelch. Blowing the cans kills the rushing noise of the squelch. Naturally, it leaves you with a set that needs some work.



Never, Never, Never.

No, never use the cord for pulling the battery plug.

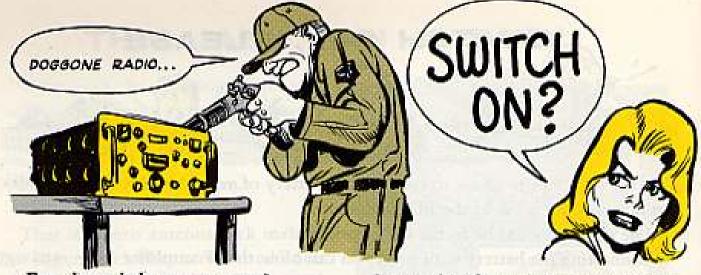
Such non-thinkers are stinkers when they stretch the cable to shorten the life line of their equipment. Take your AN/PRC-8 thru -10 radio sets, f'rinstance.

A coupla flips of the clips and the battery case is loose from the chassis. But, when you take to tugging 'er from there, OUCH! The cable gets groaning pains, especially around the socket.

Tuggin'll tear up the socket and plug, too. The angle of the cord's dangle puts lopsided strain on them.

And, before you can say, "Roger, Roger," you're an old codger. Your Perk'll quit talking to you. She'll pay no attention to what you say, either.

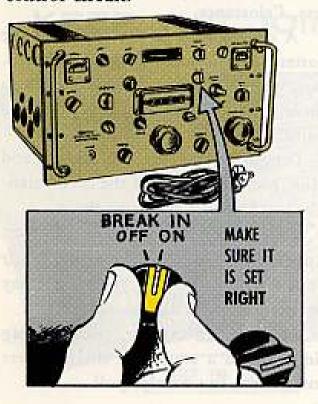
To keep her talking, put that big ring around a couple or three fingers and gently, but firmly, pull.



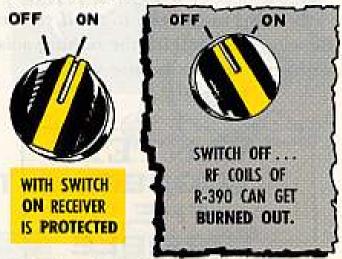
Ever have it happen to you?

Like, your transmitter, or one nearby, starts puttin' out with the RF and blip! . . . your R-390/URR or R-390A receiver quits cold. You can't pull in a whisper on the band the R-390's set for.

Well, maybe your support found it out for you when you took the set to the shop . . . and then again maybe you, too, noticed that the R-390's BREAK IN switch was shut off when your transmitter started clacking. The switch gives you protection when the break-in circuit is connected to the transmitter control circuit.



So-o-o, it's downright important to have the switch set right. F'rinstance, if the BREAK IN switch's not in the ON position when a nearby transmitter puts out, or if the relay is not connected into the transmitter control circuits, RF voltage from the transmitter feeds through the receiver. With the breakin relay on, the receiver's protected.



When the switch is in the OFF position, RF voltage can feed back to the receiver RF coils of the R-390 and burn out the coils. Which is a round-a-bout way to get to the reason why you couldn't receive on the band setting you were in when the damage happened.

And, a final point: To cut out the receiver during transmission—when the break-in relay is connected to the transmitter control circuits—the switch has to be on.

TRACKLESS AN TRC'S

OK. YOU

GOLD BRICKIN'

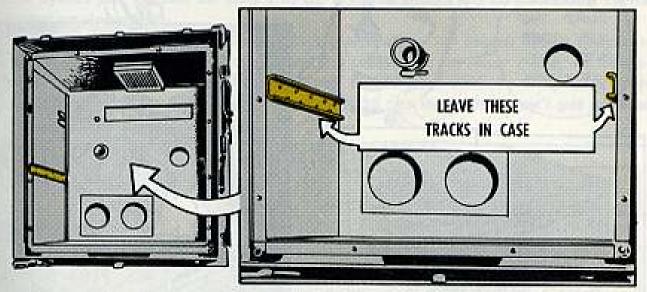
SQUIRRELS...

WHERE'S THEM

TRACKS?

Your Track-24 components need their tracks so's they won't get knocked off their trolley.

The tracks are in the cases which house most of the components of the AN/TRC-24 radio set and other such animals.



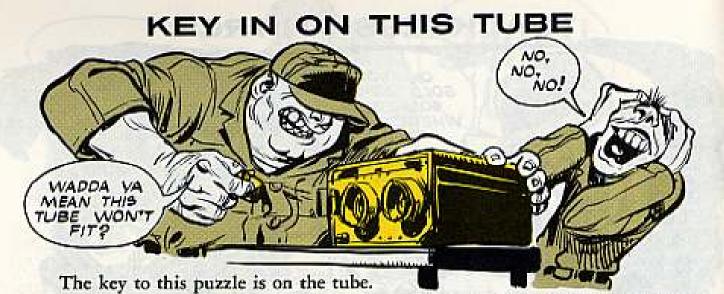
Like a squirrel stores nuts for the winter, some Joes remove and hoard the tracks whenever they turn in the cases, or the case and component, for repair. This could leave the T-302 transmitter, the R-417 receiver, or whatever, with no place to go.

Since the CY-1341, or the CY-1339, and so forth gotta have the tracks so's the components can ride in and out, these "squirrels" give their support the problem of how to scrounge new tracks.

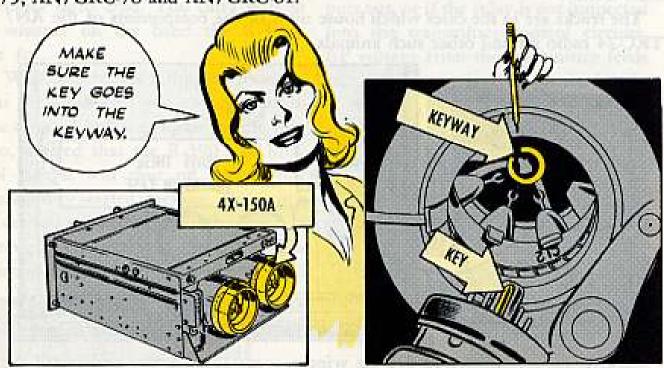
Sometimes it's not easy—and sometimes support has to salvage an otherwise usable case for want of a track.

So-o-o, removing a track till your case gets back might mean that you'll just never see the case again. In which case saving the track "just in case," can make for a mighty expensive case.

Don't be a squirrel.



Find it and you get the complete picture with your T-302/TRC transmitter and with some of the amplifiers used with Radio Sets AN/TRC-24, AN/GRC-75, AN/GRC-78 and AN/GRC-81.



Ignore it and you can knock any one of those sets completely out of the picture. The clues: Focus in on the 4X-150A tube (it also goes by V110 in the T-302 and V1 in the AM-912, AM-915, AM-1178 and AM-1180).

See the key on the side, just above the pins? Use it, and there's no more puzzle. It's the prime factor in installing the tube.

The key goes into the keyway of the tube socket (again, V110 or V1).

To avoid damage to the socket, square up the key and keyway slot before you press the tube into place.

Another clue: Never rotate the tube after the key's positioned.

Finally, after pushing the tube in squarely, you'll feel it snap in place.

Then, and not before, rotate the tube retainer over the top of the tube.

Puzzle solved? Fine. So spread the word on the solution.

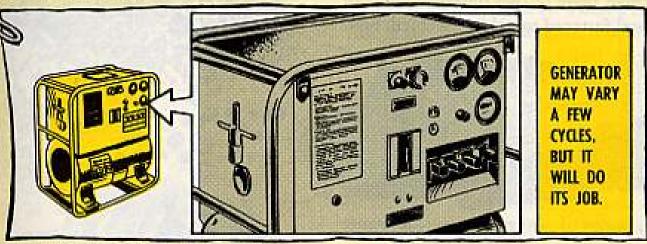
CYCLING YOUR PU-126



Dear Half-Mast.

Halp! Get the word out that the PU-126/U motor generator set can be a few cycles per second off and still do a right smart job in powering certain radar equipments!

We've got users who turn in their generators for repair when they can't get the exact cycles per second reading called for in their radar equipment TM's. Like, maybe their manual will call for 400 cps and the frequency meter reading of the generator will be pushing 405 cps. And, they can't get an exact 400 cps reading.



Fact is, the reading'll be higher every time-402-407 cps, f'rinstance. Same deal for higher readings, with less load or no-load. It's the nature of the generator to vary a few cycles, but it doesn't affect the generator's job.

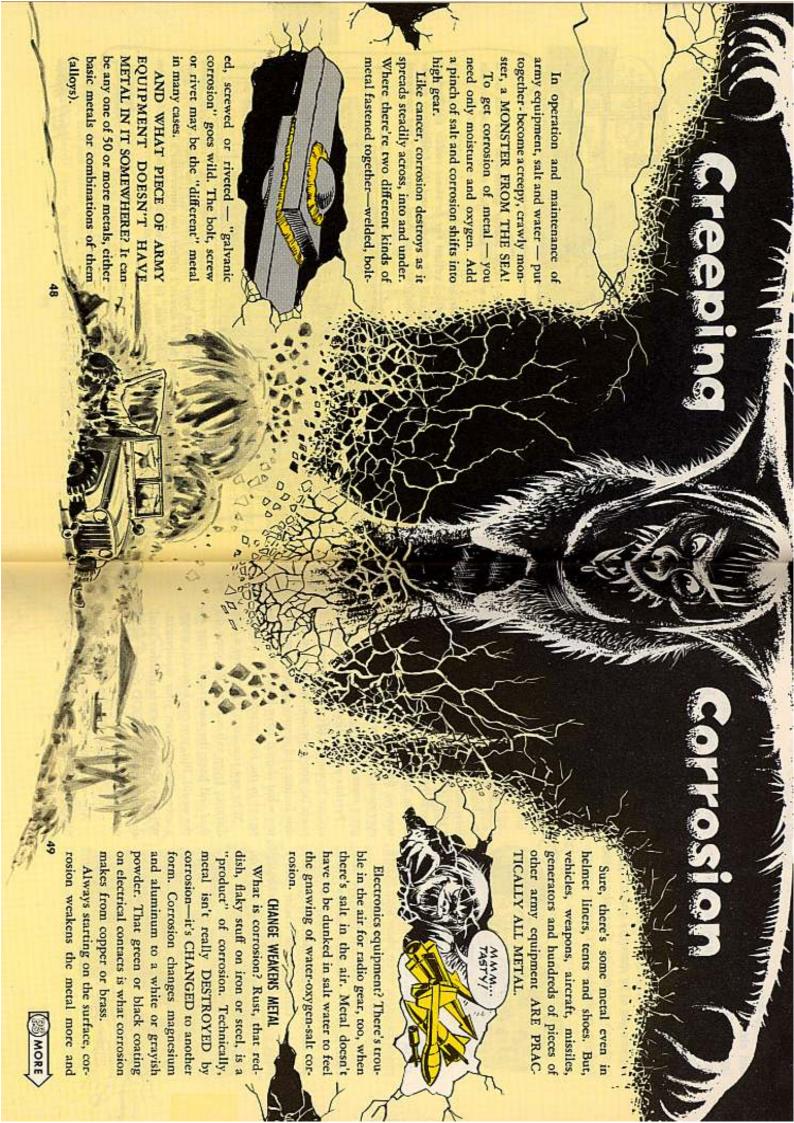
There's nothing wrong with 'em, in other words, so they shouldn't be brought in for repair for that reason.

Sgt H. H.

Dear Sergeant H. H.,

You are so right. If there be any doubters, let 'em feast their eyes on page 7 and para 52f, page 63 of TM 11-910. Half-Mast

47



sometimes, even injury or death to lays, costly replacement of parts and, and electrical failure, resulting in demore as it spreads. It causes structural

IT'S ALL AROUND

and you probably won't have to worry or there's no corrosion. Go to the moon There's got to be moisture and oxygen How does corrosion get started? a meal o' metal!

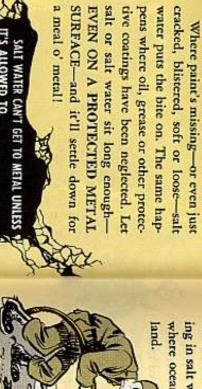


moisture and SOME oxygen. going anyplace where there's not SOME about corrosion, but today's army isn't

oxygen electrolyte, Jack up the temhunk o' rust, Salt soups-up the watercorrosion turns a truck fender into a and oxygen are the "electrolyte" when up" the lead plates? Plain ole' moisture electrolyte in a storage battery "eats perature, like in the tropics, and y'got Ever see or hear tell how the acid



a first-class "operation corrosion." cracked, blistered, soft or loose-salt Where paint's missing-or even just



FIRST LINE OF DEFENSE

man to fight off the stuff that makes handle the equipment. It's up to each get a start. corrosion or to catch it quick if it does especially the guys who operate and THE GUYS WHO ARE THE ARMY First off-like in any battle-WITH its biggest enemies, CORROSION? So, how does the army fight one of

ers can be used to lift out corrosion, and tected in the first place. parts beyond hope can be replaced, but ing what should have been better prothis is time and money spent on repair-Farther up the line, powerful clean-

a safe distance from your equipment. or lubricant is a big help. the world. But, you can keep salt water that and have the most ready army in the thickness of a GOOD coat of paint Washed clean off is a safe distance, and distance from salt water? We can't do Why not just keep equipment a safe @

FORDING FOLLOW-UP

SHOULD BE-with fresh water and Any equipment that can be washed,

> where ocean tides push salt water ining in salt water. This includes streams AS SOON AS POSSIBLE—after ford-

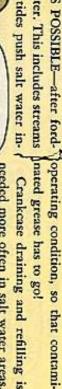


through salt water. A complete "pull up for long after a vehicle has been run of corrosion, but even they can't hold Oil and grease HELP fight the bite



that have been dunked MUST GET after fording. Other lubrication points packing of wheel bearings—is a MUST IMMEDIATE ATTENTION. down"especially cleaning and re-

salt water dousing is not a normal doesn't mean the grease needs replacoperating conditions this milky look grease a milky coloring. Under normal moisture in suspension. This'll give the A special inhibitor in the grease holds getting to metal through GAA grease. ing before the LO calls for it. But, a Water doesn't have an easy time



chance to attack bearings and all other exposed metal. engine, this salt water jumps at the OIL. If allowed to circulate in your or diesel engine picks up condensation Every operator knows that a gasoline needed more often in salt water areas YOU GET SALT WATER IN YOUR into an engine carries salt in with it, in its crankcase. When the air pulled Crankcase draining and refilling is

PENNIES OR DOLLARS?

compared to the cost of cure. nance, but it can be measured in ounces expense in good preventive mainte Yeah, there's a lot of time, work and

run through salt water. Corrosion got RUINED BY CORROSION! \$1,400 WAS SPENT ON EACH OF in the suspension systems. A year later into the metal around nylon bearings islands. The tanks weren't pulled down ing exercise on one of our tropica THESE TANKS TO REPLACE PARTS for cleaning and new lube after their Like that tank battalion after a land



YOU LOOK

for a little neglected prevention. lars, that was a lot of cure to make up Ounces or pennies, pounds or dol-



51

CHASE IT WITH A WASH

THIS SALT AIR IT CORRODES
REFRESHING? MY VEHICLES.

You don't have to wallow your tank or truck in salt water to start it down the road to high-speed corrosion. Just a stiff breeze off the ocean can carry enough spray to give your equipment a heavy dose of salt. You can SEE it when it dries to a white haze or powder. That's the next worst thing to dunking your equipment right in salt water. IT'S GOT TO BE KEPT CLEANED OFF. The more often metal is cleaned, the less possibility of corrosion.

This salt-in-the-air goes beyond vehicles. Ocean breezes carry miles—to generators, missiles, aircraft and radios. You name it, YOU'VE GOT IT.

PITFALLS FOR PLANES

Those flying machines get around to a lot of places where they're exposed to corrosion, but just sitting at night in the dew will cause pitting of Alcad surfaces.

And they're sittin' ducks for battery acids, relief tube spray, smoke, exhaust fumes and gunfire gases.

Corrosion crawls into the innards of these birds, too. Parts are affected along



with sections where foreign matter or moisture may collect due to improper drainage or disposal outlets. Where sun and air can't get to this trapped moisture, it's up to you to get it out if you can reach it.

A SUCKER FOR SALT

Operate radar, a radio or any other electronic gear and it heats up. Shut it off and it cools down—AND "TAKES A BIG BREATH." It sucks in air as it cools and contracts. If there's salt in the air, those copper and brass electrical



contacts—and a lot of other unprotected metal—are duck soup for corrosion. That electronic gear'll get it where it hurts!

Where it's hot, humid and salty, this sucking-in can be cut down by keeping the equipment heated. Electrical contacts and all other metal innards will be spared a lot of corrosion.

FLUSH AND DRY

Fast action's called for if a radio or other piece of electrical or electronic gear gets dunked in salt water—and it happens in surf operations. If at all possible, that salt water should be washed off and flushed out with fresh water before it gets a chance to dry.

Cleaning and drying have to be done thoroughly and carefully. A little dirt or moisture left inside can foul up the works but quick!

Pat, don't rub, when drying with a clean, absorbent cloth. Compressed air's OK, too, if you take it real easy. If you're out in the field and a hot box isn't handy, rig up some light bulbs in a tent or a box for drying. Watch out for too much heat if drying in the sun.

Make sure all the moisture's out before turning the set on.

OUTFLANKED-BUT NOT OUTFOXED

So, you're on the ball. You wash your tank or truck off with PLENTY OF FRESH WATER right after fording—being mighty careful, of course, not to douse wiring or other parts that don't cotton to water.

You search in, under and around for those little nooks and crannies where salt water might be hiding out, and you flush it out. You make sure drain holes are open.



You use the right solvents and cleaners so you get rid of salt and dirt without causing as much damage as corrosion would. You know that ordinary dirt holds moisture—including the salty kind—so you keep everything spic 'n' span.



's You're right in there with the paint
if to touch up fresh scratches and gouges
x before corrosion sinks its teeth into that
n bare metal.



ih No salt's going to get by you—not Y for very long, anyway.

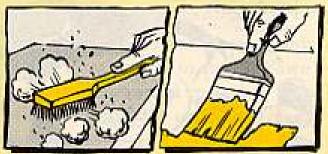
But, suppose it does!



You spot a little crust o' rust on a fender, wheel, panel or other part. Or it's a whitish or gray powdery coating on magnesium or aluminum. Maybe

you poked a suspicious-looking place in the paint job with a sharp, pointed tool (Take it easy there, Boy!) and found a bad spot in the metal.

Now you throw in the reserves—not the towel! You haul out the scraper,



wire brush, sandpaper, cleaner and the paint or whatever grease or protective coating's called for. Your equipment may still be a long way from going up the line for replacement of a part ruined by corrosion.

You get rid of the corrosion that's started, and, if you go about it the right way, you make sure corrosion doesn't get in another crack at the same place.

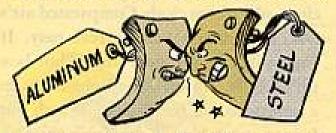
Some cleaning and treatment methods are strictly up-the-line jobs because of mixing and handling dangerous chemicals and because of special equipment. A lot of good stuff on corrosion is in TM 9-247, TM 9-208-1, TM 55-



405-3 and TB 9-337 (the last one's for guided missile systems). A good deal of it's for upper echelon maintenance, but there's useful info in these for operators, too. You can get the rep as "that guy who knows all about corrosion."

Find out the easy way—by reading, instead of sad experience—that ANY METAL SURFACE HAS TO BE ABSOLUTELY CLEAN AND DRY BEFORE YOU PUT ON GREASE OR PAINT OR OTHER PROTECTIVE COATING. Goof up on this and you just seal in the stuff that causes corrosion. It'll keep right on eatin' up the metal and you'll have a hard time spottin' it because it's covered up.

Remember, too, about what "different" metals can do to each other, so use



a stainless steel wire brush and aluminum wool for cleaning magnesium and aluminum or you'll wind up pushing "different" metal right into 'em. And easy on the scraper with magnesium and aluminum. They're soft and some-



times thin, and you could take off too

Three points to write on the inside of your head are PREVENT corrosion by washing, painting and lubricating; DETECT corrosion by frequent and thorough inspections; CORRECT corrosion by doing it yourself or, if it's real bad, reporting it.

Engrave this on your brain:

LOSS OF VALUABLE EQUIPMENT AND EVEN HUMAN LIVES CAN BE THE PAY-OFF FOR POOR PREVENTIVE MAINTENANCE AGAINST CORRO-SION.



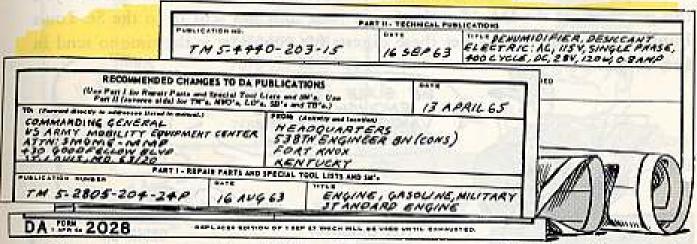


YOUR CARRIER PIGEON

Remember reading about how a pigeon named Cher Ami carried a message that saved a battalion back in the First War?

Now, there are other ways to carry messages.

Like, if you want to tell about an error—or if you have an idea for improving one of your pubs—use a DA Form 2028, "Recommended Changes to DA Publications," to carry your message direct to the people who wrote the pub.



If you don't have a Form 2028, ask your company clerk for one. He can order forms just like he does manuals...on DA Form 17 from your outfit's pubs section.

The Form 2028 has one side for Repair Parts and Special Tool Lists and SM's and the other for Technical Publications.

When you're putting down a publication number, be sure to include its date. And include enough info like page, paragraph and line so the people who get your form will read along with you.

After you fill out your DA Form 2028 (only one copy), send it to the address listed in the pub you want to change—direct.

So, if you think a change should be made in a pub, let your Form 2028 be your Cher Ami. Maybe it won't get you the Croix de Guerre, but it'll get the message thru and make it easier to take care of your equipment.

REQUIREMENTS FOR INITIAL DISTRIBUTION OF ARMY AVIA (1993 PUBLICATIONS (48 2002)

6 Sep 65 400001 NUMBER 2309

SHEALT CONTROL CONTROL

TB 586 385-3

INSTRUCTIONS: THIS FORM WILL BE COMPLETED IN ACCORDANCE WITH INSTRUCTIONS ON REVENUE SIDE

HERE'S HOW TO GET 'EM ...

new forms.

THOSE EIR DIGESTS



About the hottest items coming out these days are the Equipment Improvement Report and Maintenance Digests (EIR Digests).

The engineers and design guys have been looking over all the EIR's that you shoot at them. When they've got the word on a batch of problems, they whip together a technical bulletin which the Army prints up and sends out so you'll know what's cookin' on your equipment.

To keep up with the latest, here's a rundown on the EIR Digests and how you can get them. If the DA 12-series forms your unit has sent in to the St. Louis Publications Center don't get these digests for you, now is the time to send in

GURE YOU

ORDER

ENOUGH OF VARIOUS TB'S ON YOUR EQUIPMENT TB SERIES TYPE EQUIPMENT ORDER ON (For Automatic Distribution) TB 3-600-Series **CBR** items DA Form 12-34 (Write-in entry) TB 750-932-1 Generators, compressors, DA Form 12-9 MHE, tractors, etc. TB 9-1000-200-15 **DA Form 12-34** Weapons, artillery, Fire control items (Write-in entry) TB 9-1400-Series Missile equipment DA Form 12-32 TB 750-933-1 (Formula Distribution) Trucks, tanks, personnel carriers TB SIG 363-Series Communications, Electronics DA Form 12-34 (except missile) (Write-in entry) TB 750-931-1/1 thru 17 Aircraft DA Form 12-31



AR 746-5 (30 Jun 64), "Marking and Packing of Supplies and Equipment, Color and Marking of Army Materiel," says, a white 5-pointed star will be marked on all tactical and combat vehicles.

Are there star decals for this symbol? If so can you give me the FSN's?
Sat E. M. V.

Dear Sergeant E. M. V.,

There are star decals available and you can use them instead of paint.

Here're the FSN's for some of those stars: MARKER, pressure, sensitive ad-

hesive, white, "STAR 5 POINT".

Height, Inches	FSN	OF TB 746-931-1 (OCT 64) FOR
6	7690-329-1125	
10	7690-329-1215	
12	7690-329-1260	yamiling as board in
16	7690-329-1264	Tipe and the last of the last
20	7690-329-1445	of the second to
25	7690-329-1447	
32	7690-329-1463	
36	7690-329-1628	DAT TO SECOND
7	<u></u>	1 1Ma

PAINT--FOR ON-OFF

If you've been looking for that gasoline-soluble paint for markings on your vehicles and other rolling equipment called for by AR 746-5, here it is: Paint, temporary, white (insignia), FSN 8010-597-8238 for 1-gal can (in paste form). You'll find it in Federal Catalog C8000-IL-A (1 Apr 65) and in the GSA Catalog (Dec 64).





Dear Half-Mast,

In a TOE outfit, can hand receipts covering property issued to the various sections (platoons, maintenance section, mess section, etc.) be signed by the NCOIC?

We've always had the noncom sign, but now I'm told that hand receipts must be signed by an officer. (The officers assigned to some of our sections have the assignment as additional duty only.)

Can you tell me what AR says an officer must sign H/R's?

SP 5 C. L.

Dear Specialist C. L.,

The DA SOP on hand receipt issue is AR 735-35. See para 13a.

The AR says to the extent practical hand receipt issue will be made to the element that will use the property.

However, since a CO still has responsibility for the outfit's property, regardless of who has it on hand receipt, the AR lets him decide how to handle hand receipt issue.

Another reason the AR doesn't spell out who can or can't sign is that government property is used by all types (all ranks, grades and even civilians). The AR recognizes that the CO having command responsibility for the property book can best decide who's to sign. So through his property book officer he sets up whatever H/R SOP offers the best control and convenience for his operation.



REGISTER DATING RECEIPT FILE NO. DEST A 11.5, GENERAL WEST PRINTED ARRESTS 19-2 to a 11487 THIS PAGE SIDEWAYS TO READ THESE 031 DATES (Day, Honth, Year) DATE COMP Ž On DA Form 2064, "Document Register for Supply Action," which date goes in the "To" block? Is it the last date in column 1 or the last date in column 9? SFC S. C. The "To" block takes the last date in column 1. That is, the date of the last The from and to date info can help you track down the scoop on any supply transaction (or document number) initiated during the period shown in the blocks. And, of course, the date info is helpful when you're tossing out files 7004 WEST STATES RICHARDIN ORGANIZATION SUPPLY CODE REPLACES OF FORM 1884, 1 JAN 18, MAICH IS OBSOLETE. 41231 GUANTITY REQUESTED TECHNICAL See AR 711-17, para 8b(3) and AR 735-35, 12c(3). ORGANIZATION ACTIVITY supply action you initiated on that page. SEMANN'S DOCUMENT REGISTER FOR SUPPLY ACTIONS Dear Sergeant S. C., Dear Half-Mast, (AR 345-215). CAR 739-333 -800 EORY, 2064 **M200** 1.40





actor painted over them, then tried to scratch it off. some cases, you can't even read the plates because some brush-happy char-I have a dazen 5-kw generators with a lot of errors on the ID plates. In

on how to get new plates. I don't want to get gigged, but I can't find any into in the parts manuals

I need help.



Dear Sergeant J. O. S.,

your support unit. No sweat, Sarge. Installing and correcting ID plates is the responsibility of

with a letter and figure punch set. If you need new tags, they'll make 'em and changes are minor, your support people will make minor corrections on the tags Get the word to them on a DA Form 2407, Maintenance Request. If the

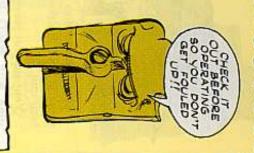
THE RIGHT HOL - GAR,

mighty important at times. The right position can be

Continental Motors generator set. the fuel selector valve handle on the 3-kw, 400-cycle Like when you're turning

on the legend plate. When the pointer of the handle stalled so that their position doesn't jibe with the info shows "AUX TANK" or "SET TANK," the valve is in the "OFF" position. Seems that a batch of these handles have been in-

opposite the original position. handle and replace it so the pointer is set 180 degrees No sweat to correct the position. Just remove the valve



SAVE YOUR PEEPERS



Sgt J. O. S.

to get yourself a good tan. Bright sunlight may be the answer when you're trying

30-kw generator are dim or slightly glowing. the synchronizing lamps on your Jeta WD301815-WA But, it's murder when you're straining to see whether

best thing-take off the milk white lens covering the lamps. Nacherly, you can't switch off the sun, so do the next

No eyestrain now, even if you're not 20/20.

handy place. You'll want to put 'em back when you're not operating in direct sunlight. Once you take 'em off, be sure to keep 'em in a safe,

THE PLATES ARE RIGHT

set don't jibe. Root 10-kw FERO-1 generator and the wiring diagrams in the TM's for the Hear tell that the wiring diagrams on the set-mounted plates of the Kurz and

ing instructions and connection, and change-over instructions you follow the plates on the generator-wiring diagrams, schematics, operat-So, until there's a change to TM 5-6115-296-12 and TM 5-6115-296-35,

8

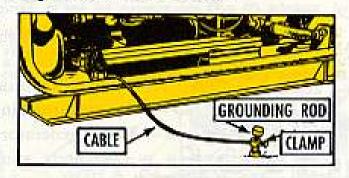


There's no need to get a shock from your M1958 8-showerhead portable bath unit.

Your support people can remove the sting with MWO 10-4510-201-30/2 (23 Sep 64). It tells them how to install an electrical grounding system through a grounding wire in the power cord assembly.

So, fill out a DA Form 2407, and send it to your support so they can schedule the modification in their work load.

Meanwhile, see if your generator has a ground rod. If it doesn't you should order: Ground Rod, FSN 5975-642-8937; Clamp, FSN 5975-243-5861; and Wire, FSN 6145-189-6695. This dope is also in the MWO.



NO STRAIN ON THE STRAINER

""["M GOING TO WASH THAT DIRT RIGHT OUT OF MY HAIR" MAY BE THE TUNE YOU'RE SINGING, BUT YOU MAY HAVE TO CHANGE YOUR TUNE.

If the suction strainer of your M1958 8-shower-head portable bath unit gets fouled up with weeds, sticks and such, you're not going to get a shower. Your TM 10-4510-201-10 (Jan 60) gives you the dope on protecting the strainer . . . but here's another approach: Lower the strainer into a large container (can or bucket) that's been put into the water so that it's completely covered.

M1937 FIELD RANGE

Dear Half-Mast.

We have some M1937 field range outfits. Due to the high humidity in this area, we have a real problem trying to keep these ranges free of rust when in temporary storage.

Our TM 10-701 (Jul 57), tells us to coat all unfinished surfaces with rust preventive compound, but it doesn't give the FSN or nomenclature. Can you give us these?

SFC L. E. McP.

Dear Sergeant L. E. McP.,

For temporary storage, use preservative corrosion preventive petrolatum, Spec MIL-C-10382, FSN 8030-251-5048. This is a non-toxic preservative. It's a GSA-6 item, and that FSN should get you a gallon. It costs around \$1.44 per gallon. You apply the preservative by spraying-or you can brush it on.



DUNKING AND SWITCHING'S O



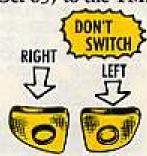
Dunking in hot soapy water may be all right for cleaning most canvas and webbing equipment (like it says in FM 21-15), but it's out when it comes to the M15 field protective mask carrier. That's the carrier your M17 mask fits into.

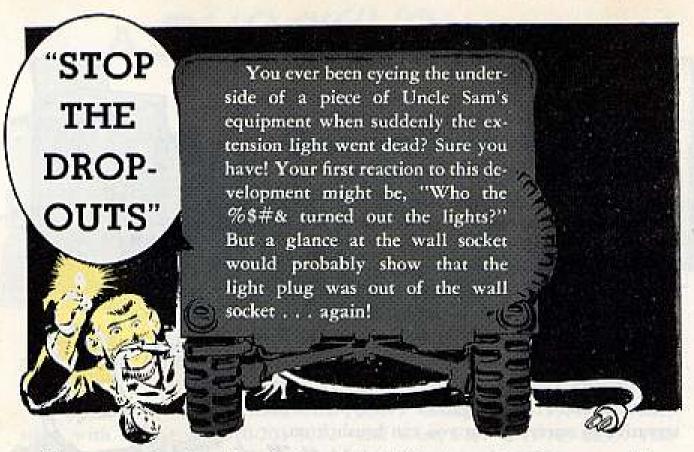
Some of these are stiffened with fiberboard and can't stand the hot soapy water treatment.

Clean the carrier with a brush dipped in clear cool water.

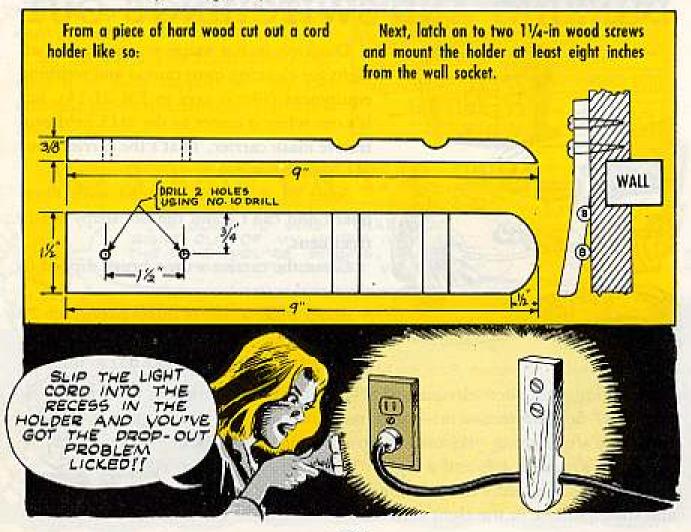
Better make a note of this in paragraph 29 of TM 3-4240-202-15 (Nov 62), if you didn't get Change 3 (21 Oct 63) to the TM.

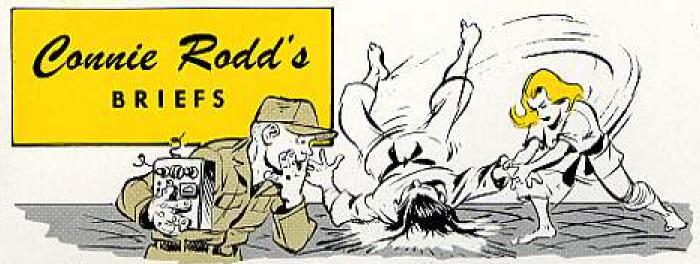
Changing the filter elements (FSN 4240-678-8474) in your M17 field protective mask may not be much of a job. But there's one thing you must keep in mind-that FSN gives you a pair (a left and a right). When you're putting them in the mask, make sure the left one goes in the left side, and the right one in the right side. OK?





To prevent the plug from being yanked, kicked or otherwise removed from the wall socket you might try this fix.





Ammo supply form

The new DA Form 581 (May 1964) "Request for Issue and Turn-in" takes over ammo supply chores as of 1 May 1965.

The new multi-line item form is prepared in five copies, which work like this:

No. 1 — Voucher copy for accountable officer. No. 2 — FIA (Financial Inventory Accounting) when needed. No. 3 — Due-out copy for requesting unit. No. 4 — Suspense copy for requesting unit. No. 5 — Shipping copy returned with ammo order.

M14 and M1482, too!

How is the M14E2 rifle different from your trusty old M14? It's all spelled out—with pictures and stock numbers and all—in the new TM 9-1005-223-12 (8 Feb 65). If your outfit has the M14, order plenty copies on DA Form 17 from the St. Louis Pubs Center.

Uew index

There's a new index, DA Pamphlet 310-6 (Mar 65), for Supply Catalogs and Supply Manuals. Get yours.

Inventory time

Your inventory of commercial design vehicles and military design vehicles in administrative use — called for by Change 1 to TM 38-750 but suspended by DA message — is on again. Details on completing DA Form 2408-7 for these items are in DA Cir 750-8 (14 Apr 65), including codes to be used. Report commercial design vehicles by registration number — military design vehicles in administrative use by serial number. The circular lists specific vehicles covered.

75N switch

When you want to get or replace the 30-foot Gage and Hose Assembly used to inflate the tires on your 5-ton G744 and 10-ton G792-series trucks, order it under FSN 5210-777-2943. This is a new FSN for the latest TM 9-2320-211-10 and TM 9-2320-206-12.

Recording help

Got a training program on TM 38-750 equipment records procedures? The new Army Subject Schedule 38-1 (11 Sep 64) can help your plan.

Would You Stake Your Life jught now the Condition of Your Equipment?

