

Issue 171

PS

1967 Series

THE  
PREVENTIVE  
MAINTENANCE  
MONTHLY

CONFIDENTIALLY,  
GEORGE, I SOMETIMES GET  
THE FEELING THAT OUR OUTFIT  
AIN'T BEEN KEEPING UP  
WITH THE **MWO'S** ON  
OUR EQUIPMENT!



Will Eisner



You can help solve one of the Army's biggest problems. That's right . . . if you're a maintenance or supply man, you can be a big help.

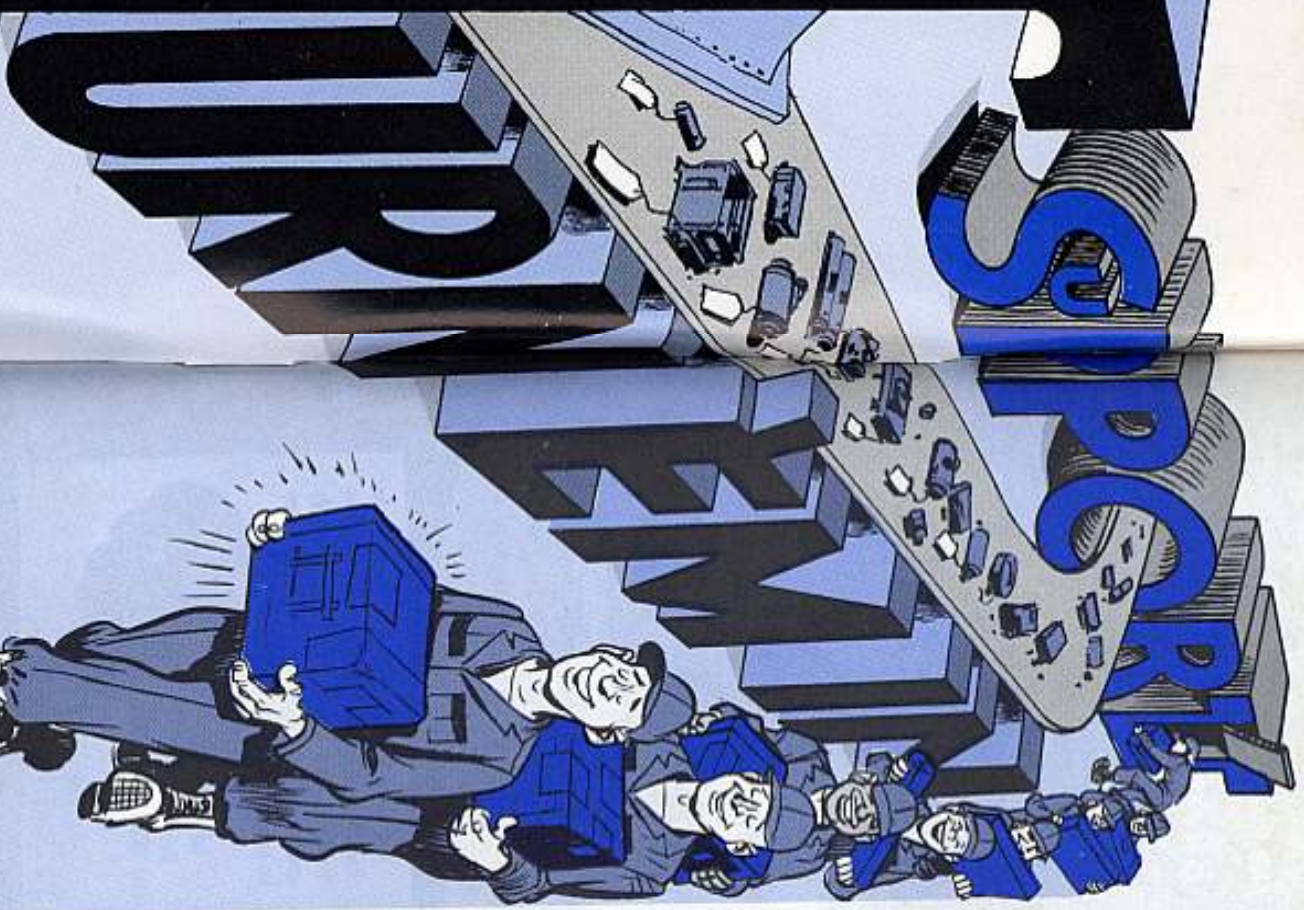
**It's like this:**

Reparable parts taken off equipment and equipment needing repair by higher level maintenance units get left in the corner of the shop or tent or on the shelf at your unit. They won't do anybody any good sitting there. And they only clutter up your work area.

When you don't put them into the maintenance channels to get them fixed so they can be put in the supply channels ready for use again, you bog down the whole supply and maintenance system. You might be the guy who needs that engine, generator or carburetor tomorrow or next week.

So, if you've got some item in your area needing repair, get rid of it. Turn it over to your direct support unit. If they can fix it, they will and have it ready for you or the next outfit to use. If they can't, they'll move it on to a general support unit or to a depot where it will be repaired and put back in supply.

Move that reparable item along—fast—to the outfit that can fix it. You'll be helping yourself.



**PS**  
 THE PREVENTIVE MAINTENANCE MONTHLY  
 Issue No. 171 1967 Series  
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PS wants your ideas and contributions. Send us your questions, comments and address. We'll be glad to answer them.  
**Sgt. Melf West,**  
**OS Magazine,**  
**Post Knox, Ky.**  
**40121**



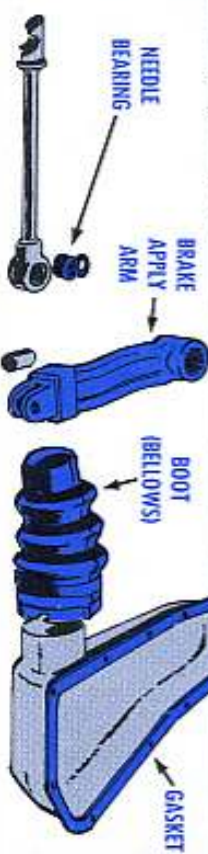


M48A3 AND M60 TANKS ...

## BRAKE MAINTENANCE



So what happens? So dirt and water sneak into the left and right brake control lever shields and make a glop that plugs around inside the shields.



The glop rusts the needle bearings and makes the brake apply-arms hard to work. It also rusts the quick disconnects and tube assemblies. In freezing weather the glop freezes hard as concrete and you have to pull the pack and chip it out before you can use your brakes. There must be an easier way.

## TIP



Have the pack pulled and the shields taken off and deglopped. Your mechanic will also clean and lubricate the needle bearings in the brake-apply arms. If they're too far gone he'll be happy to put in new ones. They are FSN 3110-120-3085, Item 7 on page 2-167 of TM 9-2350-215-20P (Jan 65), and Item 13 on page 2-305 of TM 9-2350-224-25P (Jan 66).

If the rubber protector or cover gasket is damaged or missing, the mechanic will replace it.

INSTALL GASKET SO AS TO KEEP GLOP OUT



pulled and the brake control lever shields cleaned out. Mud and water can build up in the engine compartment if the drain valves don't work right. Naturally, this increases the chance that some glop will work through the rubber protector (boot or bellows) and on into the shields.



Your smiling company mechanic will be glad to check the drain valves every Q service and make sure they're working right.

Once you know they're OK, use 'em. Before you drive the tank make it a habit to close both drain valves and when you stop at the end of the day, open 'em up.

Follow this anti-glop program and you can put a permanent freeze on your frozen brake problems.

Get your friendly company mechanic to check the rubber boot (bellows) that fits over the connection between the tube assembly and the brake control lever shield. Boots may be missing from some M48A3's.

### M48A3

Rubber Boot

FSN 2530-887-8921

### M60

Bellows

FSN 2530-679-4505



JUST ADD THIS TO YOUR REGULAR 'Q SERVICE.'



If your mechanic finds this boot or bellows is full of glop you can be sure the brake control lever shields are also glopped up.

# TANKERS, GET YOUR SNUBBERS!



What your tank needs is friction snubbers, not hydraulic shock absorbers.

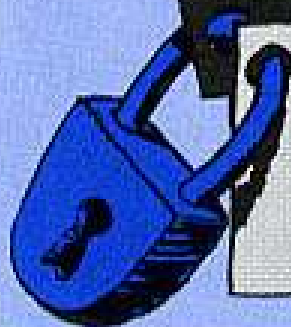
So if the Supply types try to slip you tankers a hydraulic job, snub 'em until they come up with a snubber.



The snubber, listed in your supply manuals as Shock Absorber direct action, FSN 2540-690-2756 (8382077) is the only one you should have on any of the M48-series tanks (including the M48A3), M60 and M60A1 tanks, M88 VTR and M728 CEV.

The item in Fed Cat 2540-IL-A (Apr 66) listing an alternate part number is being corrected. The only number is 8382077.

## KEY NO. FOR LOCK



When you order your padlock set for your M60 tank (TM 9-2350-215-10 (Feb 65), page B-14), ask for FSN 5340-682-1505 if you can't get the old one, FSN 5340-682-1504. This new padlock's available at the Defense Industrial Supply Center, Philadelphia, Pa.

## LOG BOOK NUMBERS

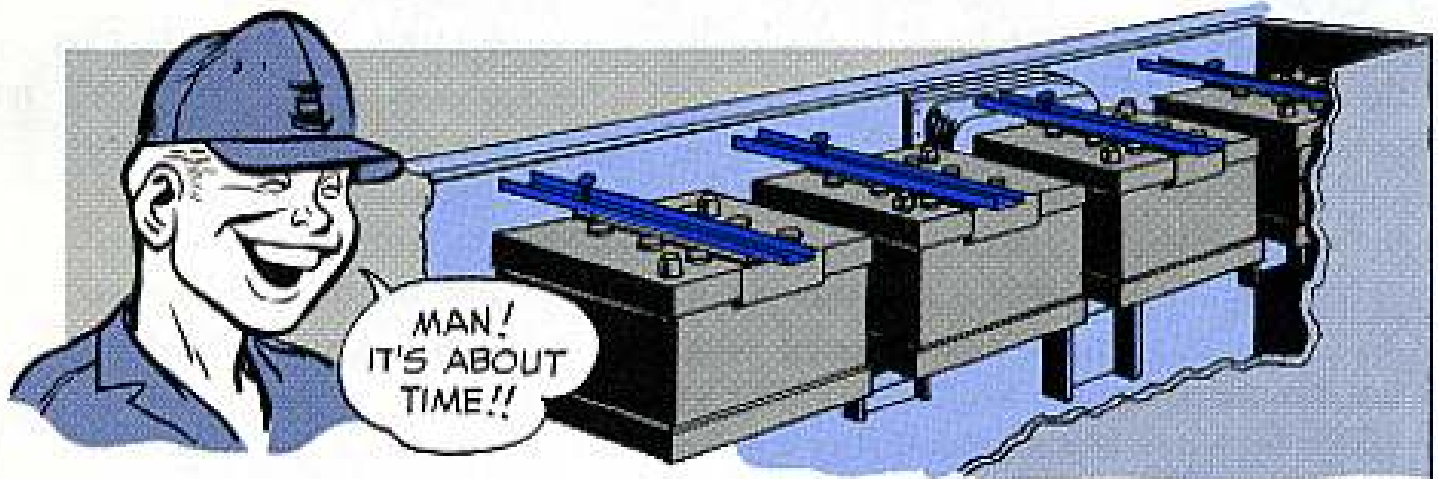


VEHICLE DATA  
PLATE

The data plate serial number is the one you use for your log books and other records. The number stamped on various parts of the hull is just so you can get the part back on the right vehicle if it is ever taken off.

This goes for the M114 Scout vehicles, the M108 and M109 SP howitzers and for all vehicles that have a number stamped on the hull that's different from the number stamped on the data plate.

## WOOD SPACERS HELP HANDLES



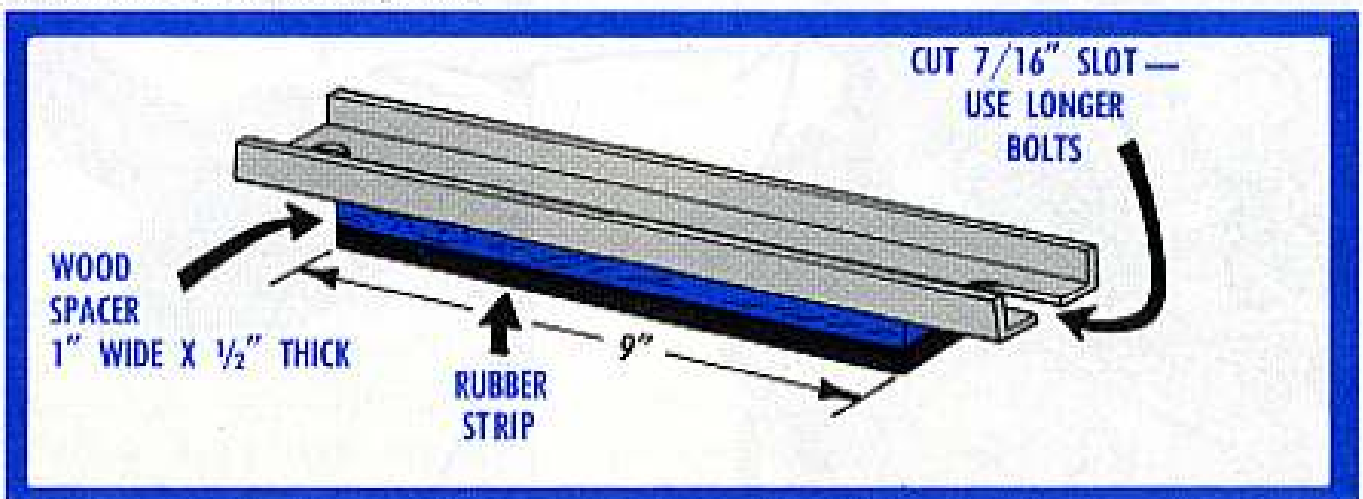
Handles are handy when you want to hang on to batteries by hand. But they're in the way when they hang up . . . like on the tiedown channels in some combat vehicles.

Seems the latest issue 6TN-type batteries no longer have handles that can drop flush with the battery top. The handles stick up just far enough to be a problem for the battery tiedown channels in your M107 SP 175-MM gun, M110 SP 8-in howitzer and M578 light recovery vehicle.

An easy way to handle the interference situation is to make up wooden spacers to fit under each channel. Then glue a rubber strip to the bottom of each spacer to cushion the battery top.

Cutting a 7/16-in slot in one end of each channel will also make it easier to put the hold-down cap screws in place. Adding the spacer will mean hunting up longer cap screws . . . about 3/8-24UNF will do. You might try the country store for 'em.

Now that we're on the supply side, the rubber strip you need for cushioning material is listed under FSN 9320-819-8964 on page 4.42 of Fed Cat C9300-IL-A (Oct 65). Glue it on with the adhesive, rubber, type III, MIL-A-5092, listed in Fed Cat C8000-IL-A (Jan 66) on page 81. FSN 8040-262-9011 for a pint and 8040-515-2250 for a quart.



# M114/M114A1 TENSIONER

So you've just had the new accessory belt tensioner (10954321) installed on the M114/M114A1 carriers . . .

Bully for you! Only thing, this is no I&F item.

If you I&F it (install and forget) you may wind up in a bind with a binding belt tensioner.

If the tensioner binds it can throw the belts just like the old tensioner did.

This could be a little bit fatal in case your vehicle has not been modified with the direct drive pump kit, MWO 9-2320-224-30/8.

The tensioner binds because it gets full of dirt. If you can't con a mechanic into keeping you out of a "bind" — it's a cinch do-it-yourselfer.

Just back the jam and adjusting nuts down the devils . . .

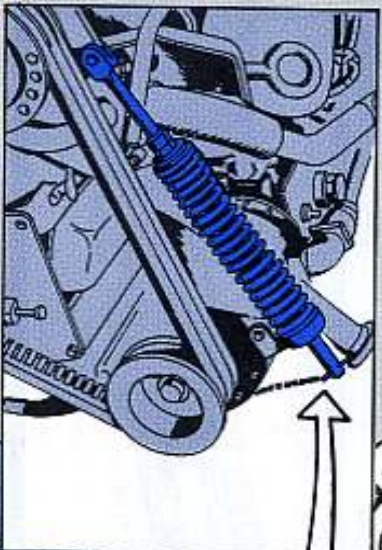


Pull out the two cotter and devils pins and remove the tensioner for cleaning.



Without taking it apart, swish the tensioner around in dry cleaning solvent or mineral spirits paint thinner, then dry it and put it back in the vehicle.

THIS DISTANCE IS A MUST!



# TOPICS



TENSION RIGHT

To make sure you have the spring tension right and no slack in the belt set, measure the distance from the plunger rod pin to the bracket. With a new belt this distance should be about 2 inches.

If the distance is less than 1/4 inch and the adjusting nut is bottomed out, it's time for new belts depending on wear of pulley groove.

If you still have trouble adjusting the belt tension — like the plunger rod won't move when you tighten the adjusting nut, or the rod won't stick out beyond the bracket — tap the top of the bracket softly with a hammer and the rod may shove out.

Still no luck? If tapping on the bracket won't get the plunger rod moving have DSU take the tensioner apart and remove the nicks or scratches from the plunger rod or bushing, or whatever else they need to do to make the rod work like it's supposed to.

If plunger rod is bent, they'll replace the entire assembly since repair parts are not items of issue.

The tensioner assembly is a little goody not in your -25P TM yet but you can order it anyway as FSN 2930-789-0421 (10954321).

OK, OK... IT'S AN EMERGENCY!



SO, I'LL FACE THE ARROW AWAY FROM THE SPRING!

## EMERGENCY ONLY

All mechanics were taught that the arrow stamped on the tensioner bracket must always face toward the spring. This is still true.

In an emergency, tho, you're allowed to put the bracket in so the arrow faces away from the spring.

You'd only want to do this when the belts are so badly stretched you can't get tension on them in the regular way.

Remember, this is only for emergency use when you don't have new belts and you have to keep going with an over-stretched set. As soon as you can get new belts the bracket has gotta be put back the right way with the arrow facing toward the spring.

GETTING TO KNOW YOUR...

## M151A1C WEAPONS

## CARRIER

Handle with care. That's the word when you step into your M151A1C weapons carrier.

You don't have to get your head blown off to learn special respect for the 106-MM recoilless rifle part of this combo. So learn the easy way how to handle the converted M151A1 ¼-ton truck that carries the weapon.

Combat loaded, your M151A1C tips the scales at about 4,500 pounds. A lot of this weight is packed topside, giving you a higher center of gravity than the regular M151A1, so your top speed is 50 MPH — like the color-coded speedometer says.

Fact is, anything over 20 MPH calls for extreme caution and plenty of driver savvy to operate this weapons carrier safely.

Even more caution is called for when operating the vehicle without the weapon aboard, because the front end's thrown out of kilter. You can move the bare vehicle around at low speed OK, but be mighty careful in taking sharp turns. Keep in mind — this carrier is not a utility truck.



(with M8C .50-cal spotting rifle and M79 mount). There's no ESC for the weapon yet, but TM 9-1015-221-ESC is due about March 1967. The M151A1C carrier uses TM 9-2328-218-ESC.

Parts for the M151A1 and M151A1C are the same except that the M151A1C gets

Spring, helical, overload, rear suspension, FSN 2510-973-2505.

Alho Ch 1 (Mar 65) to the -20P lists Brake Support, rear suspension, FSN 2530-792-8639, this item's for direct support, not organizational maintenance.

Because of a change in the weapon system's M79 gun mount, where the front arm attaches to the vehicle, you'll see these repair parts in the absolute latest -20P for the weapon:

Nut, Hexagon, FSN 5310-579-0462

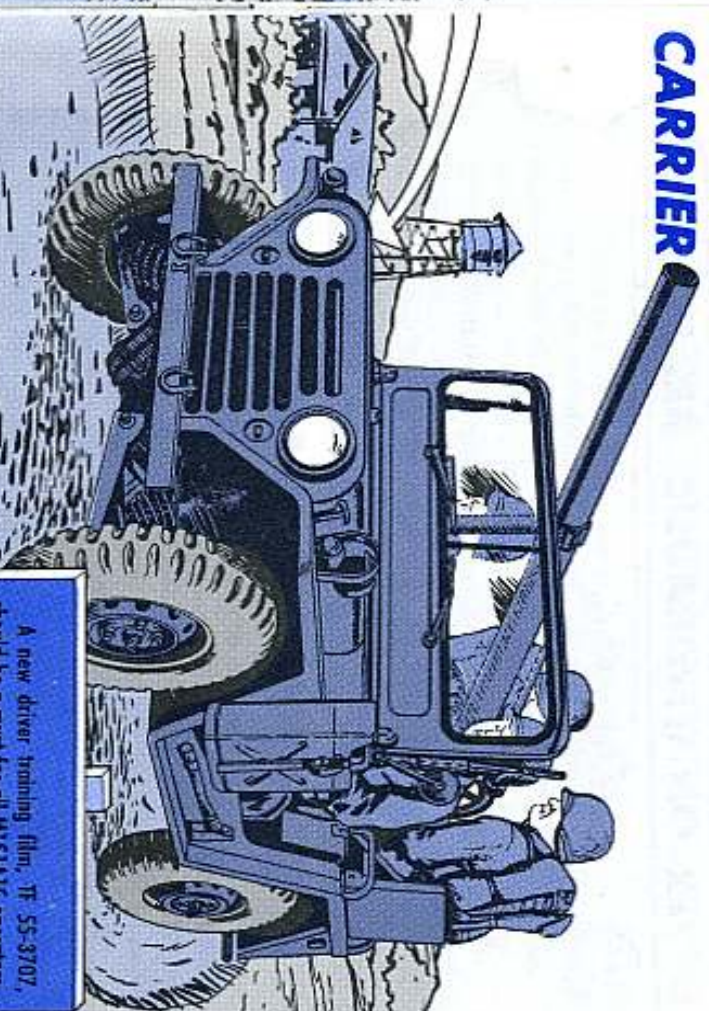
Bolt, eye, w/hook, FSN 5306-652-5554

Lock washer, FSN 5310-595-7237

All the pubs you need for the M151A1C are the same ones listed in DA Pam 310-4 for the M151 ¼-ton truck and the M40A1 reckless rifle



8



A new driver training film, TF 55-3707, should be a must for all M151A1C operators. It's got good safety pointers for drivers of all vehicles in the M151 family.

### OTHER EQUIPMENT

Your vehicle's BILL is the same as for the M151, but here're some updated FSN's:

Screwdriver, FSN 5120-222-8852

Axe, single bit, w/handle, FSN 5110-293-2336

Extinguisher, fire, freon, CEFR, 3¼-lb, w/bracket and hardware, FSN 4210-555-8837

Shovel, hand, round point, FSN 5120-293-3336

The BILL for the weapon is the same as given in Ch 2 (Oct 65) to TM 9-1000-205-12.

3

### LICENSE STAMP NEEDED

If you're assigned to jockey an M151A1C weapons carrier, your operator's license (SF46) must be stamped to show that vehicle "handling orientation has been accomplished."

That's the word that was passed in Para 29, Chap 3, TB 750-933-1/1 (Jan 66).

Like the TB says, "special care must be exercised" in operation of this M151A1 ¼-ton truck carrying a 106-MM rifle, ammo and 4-man crew.

9

## NEVER ON (HYDRAULIC) BRAKE LINES

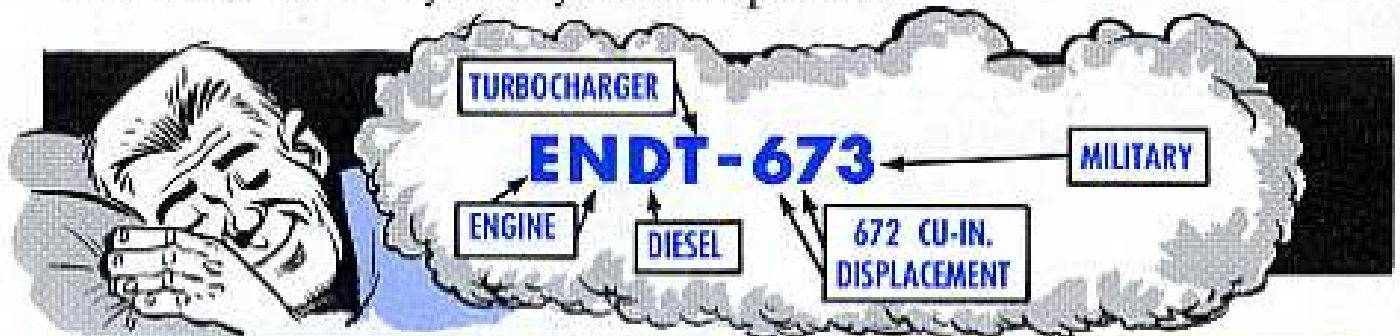


IT REALLY DOES MAKE A DIFFERENCE.

Copper tubing is not what you want in your tactical vehicle braking systems. It may be OK for some of the air lines, but it won't hold up under the heavy pressure of hydraulic fluid. You're better off with the steel tubing listed in Federal Supply Catalog C4710-IL-A (Aug 66). The table starting on page 4-43 gives you a choice of FSN's and sizes under the heading: Tube, steel, welded, double wall brazed, stress relieved, cold finished. Try some.

## WHAT'S IT MEAN?

Some 5-ton truck jockies and mechanics have been curious about the meaning of ENDT-673 — the Mack engine in the G744-series diesel job. Here's the dope: EN for engine, D for diesel, T for turbocharger, 67 for 672 cu-in displacement and 3 for military. Now you can sleep sound.



## KIT THAT SHAFT

OH! PACK UP YR' TROUBLES IN YR' OL' KIT PARTS, U-JOINT FRONT 'N' REAR AXLE PROP SHAFT, FSN 2520-656-3629, GASP 'N' SMILE, SMILE, SMILE



HMM... WONDER IF HE'S TRYIN' TO TELL US SOMETHING.

Since you can kit repair your G741-series 3/4-ton truck prop shafts, no point in asking for a whole shaft assembly when you need repair work. Parts kit, U-joint, front and rear axle prop shaft, FSN 2520-656-3629, may be all you need. Don't ask for the one listed on page 49 of TM 9-2320-212-20P (Feb 60) because it has the superseded FSN 2520-495-2266. Another point . . . the kit only costs \$5.26 whereas the shaft assembly runs as much as \$30.84 . . . besides being in short supply.

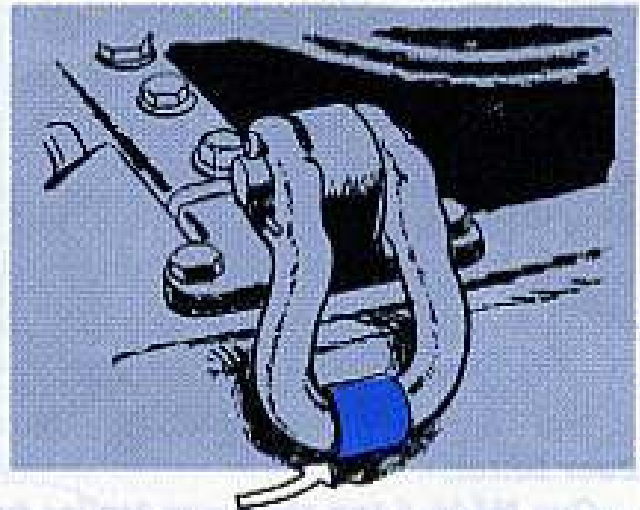


## BANISH BUMPER BANGS

Tired of nicks in your vehicle bumpers where the front towing and lifting shackles wham back and forth?

Here's a way to cancel the chipping —

Wrap the part of each shackle ring that hits the bumper with some OD adhesive tape. If you don't have tape and you're artistic, a neat whip of nylon or cotton cord does the trick.



## TO EACH ITS OWN



No one ever confuses military with commercial design wheeled vehicles. That's because you can see they're alike as cumquats and bananas. But when it comes to what kind of maintenance to pull on a tactical vehicle when assigned as an administrative vehicle, your eyes start getting watery.

Well, not any more. Now — at last — you can go to para 44b in the new TM 38-600 (May 66) Admin Use Vehicle Management, and be told to follow the maintenance procedures in each tactical vehicle's own manual regardless of how it's used or assigned.

## HOOD BUMPER RIVETS

You can get rivets thru your support for installing rubber bumpers on the top hood panel of your G742-series 2½-ton or G744-series 5-ton truck. The rivet, FSN 5320-011-0076, is in the very latest TM 9-2320-209-35P and TM 9-2320-211-35P. It's used with Bumper, Rubber: hood top panel, FSN 5340-321-6397, listed in TM 9-2320-209-20P (Jan 65) and TM 9-2320-211-20P (Mar 63).

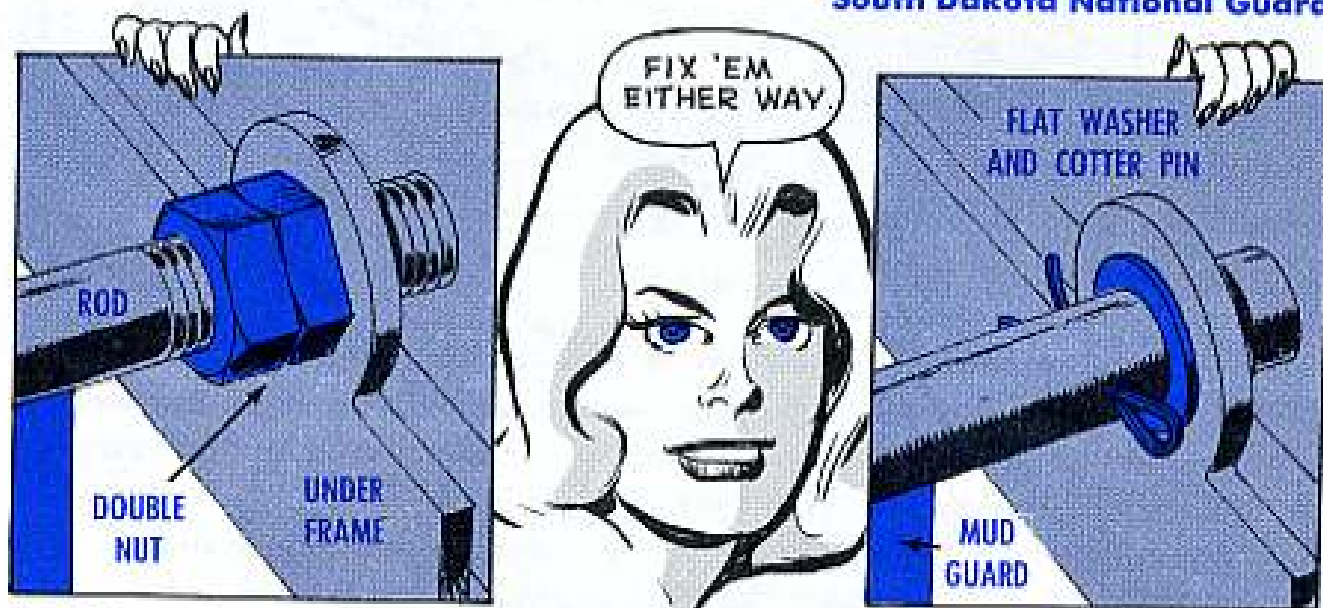


Dear Editor,

Our M146 6-ton shop van trailer had a nasty habit of losing its mud flaps until we tried this field fix.

We threaded the long end of each mud flap rod about 3 inches back. Then we used a double nut substitute for that thin little 1/8-in cotter pin to hold the rod in place. Flap movement never budges the nuts, and we never need to replace mud flaps any more.

Ivan Brookbank  
South Dakota National Guard



(Ed Note: Sounds like a sure grip tip, all right. Another way is to stick a flat steel washer, FSN 5310-809-4061, between the cotter pin, FSN 5315-058-3878, and flap rod bracket. Gives the cotter pin a bearing surface. Anybody without flaps can replace 'em with FSN 2540-860-0575.)

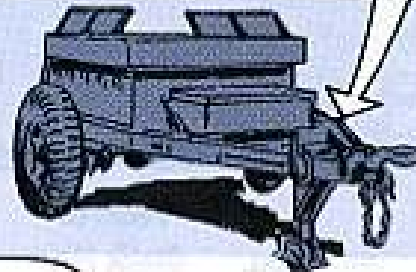
## SAFETY STRAP

Looking for the safety strap for your 2½-ton G749-series cargo trucks? Ask for strap, webbing, safety, FSN 4240-350-9056. It's the same strap that's listed in the -20P for the G742 2½-ton and G744-series 5-ton cargo trucks.

Just remember the strap's not meant for towing. It'll break.

## M332 TRAILER CABLE

If the intervehicular cable on your M332 1½-ton ammo trailer has come to grief, you can get a new one under FSN 2590-777-3068, and its supply source is Army Tank-Automotive Center. It's listed in Fed Cat C2590-IL-A (Jul 66). You'll find it too in TM 9-2330-231-14P (Aug 62) but only under Part No. 7055100.



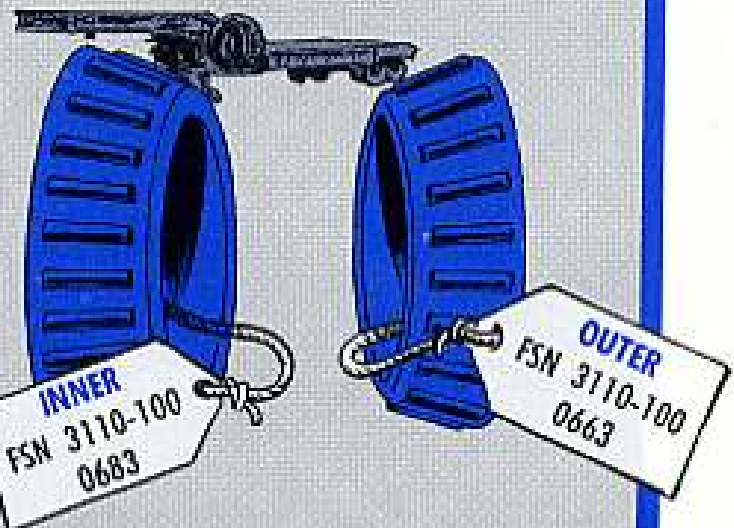
GET NEW  
CABLE  
IF YOU  
NEED IT



If you're coming up empty-handed when you order Paulin, FSN 2540-446-3163 for your M332, 1½-ton ammo trailer, try a substitute. Ask for Paulin FSN 2540-655-4205 ... it's slightly shorter, but it'll work ... and it's available for immediate issue.

## ANOTHER M172A1 NUMBER

If you're confused about the FSN's for the wheel hub inner and outer bearings on your M172A1 25-ton low-bed semi, read some more. TM 9-2330-211-24P (Jan 62) shows FSN 3110-100-0683, which is fine for the inner bearing. But the number you really want for the outer bearing is FSN 3110-100-0663 ... which equals P/N 705167. It's listed in Fed Cat C3110-ML-A (Jun 66).



## M543A2 THROTTLE CABLE

There's no substitute when you need a new rear throttle cable for your M543A2 5-ton wrecker. Have your supply people get it from ATAC under FSN 2590-912-3110.

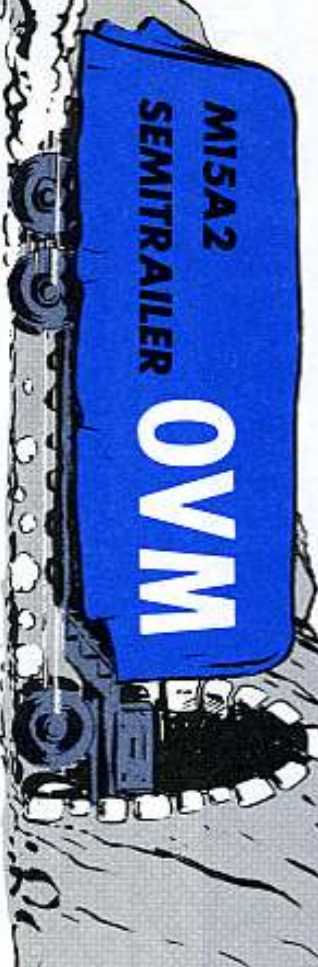
**GOT A DRAGON WAGON?**

Outfits that have the M15A2 50-ton semitrailer can now up-date their on-vehicle material (OVM).

Since the trailer was converted into the M15A2 from the M15A1, it no longer needs all the items listed in the OVM section of Ord 7 SNL G160 (Aug 52).

The SNL, by the way, is still the parts manual for the M15A2 semitrailer. And TM 9-767 (Feb 44) is still the A2's basic maintenance manual.

Here's the way the OVM stacks up:



Item	Quan.	Federal Stock No.	Item	Quan.	Federal Stock No.	Item	Quan.	Federal Stock No.	Item	Quan.	Federal Stock No.
Bog, tool	1	5140-772-4142	Chain, utility, 6-ft w/ hook and peer link	4	4010-473-6287	Jack, hydraulic, w/ hdl, 30-ton cap (41-J-109)	1	5120-188-1790	Shackle, towing, front & rear	6	2540-615-9816
Bar, platform skid, 1 3/4-in x 5-ft	2	3990-243-2630	Crane & Hoist Assy, Consisting of: Hoist (41-H-2120-50)	1	2540-770-2124	Lamp, clearance, left, w/ ext	1	6220-736-7747	Sling, wire rope, w/ dip, pins and sockets, 12 ft lg	1	3940-449-7824
Bar, crow, pinch, 60-in lg	2	5120-224-1390	Hoist (41-H-2120-50)	1	3950-282-2548	Lamp, clearance, right, w/ ext	1	6220-736-7746	Stake	18	2540-736-7726
Block, chock, wheel	4	2540-734-7862	Beam	1	2510-770-2113	Pedestal, jack, 8 3/4-in high	1	5120-449-7278	Wrench, axle nut	1	5120-474-9246
Block, snatch, wire rope	4	3940-223-3822	Column	1	2510-770-2114	Pin, locking, dip, 5/16-in diam wire, (A219744)	12	5315-350-4326	Wrench, socket, offset handle	1	5120-474-9264
Board, jack, ground	2	2510-741-7585	Rod	1	2520-770-2115	Pin, retaining, grooved f/1kg clips	6	5315-706-9195	Wrench, adjustable	1	5120-473-7635
Cable, towing, 1 1/8-in wire rope 20-ft lg	2	2540-202-2425	Tongs	1	2540-301-6887	Pin, deivs w/ chain	4	2540-734-8196	Wheel Assembly Consisting of: Wheel, w/ rim and ring assy	1	2530-278-2249
Chain, anchor, w/ hook, approx 8 1/2-ft lg	2	4010-449-6571	Crank	2	2540-770-2116	Ring, shackle	4	2540-735-0149	Tire, 14.00 x 24	1	2610-275-8011
Chain, tow, 16-ft w/ grab hook and pear-shaped ring at both ends	2	4010-473-6166	Jack, w/ hdl 20-ton cap (41-J-107)	2	5120-188-1788	Shackle, anchor w/ screw pin	4	2540-736-7753	Tube, 13.50/14.00 x 24	1	2610-051-9602
									Beadlock for 14.00 x 24 tire	1	2530-052-0943

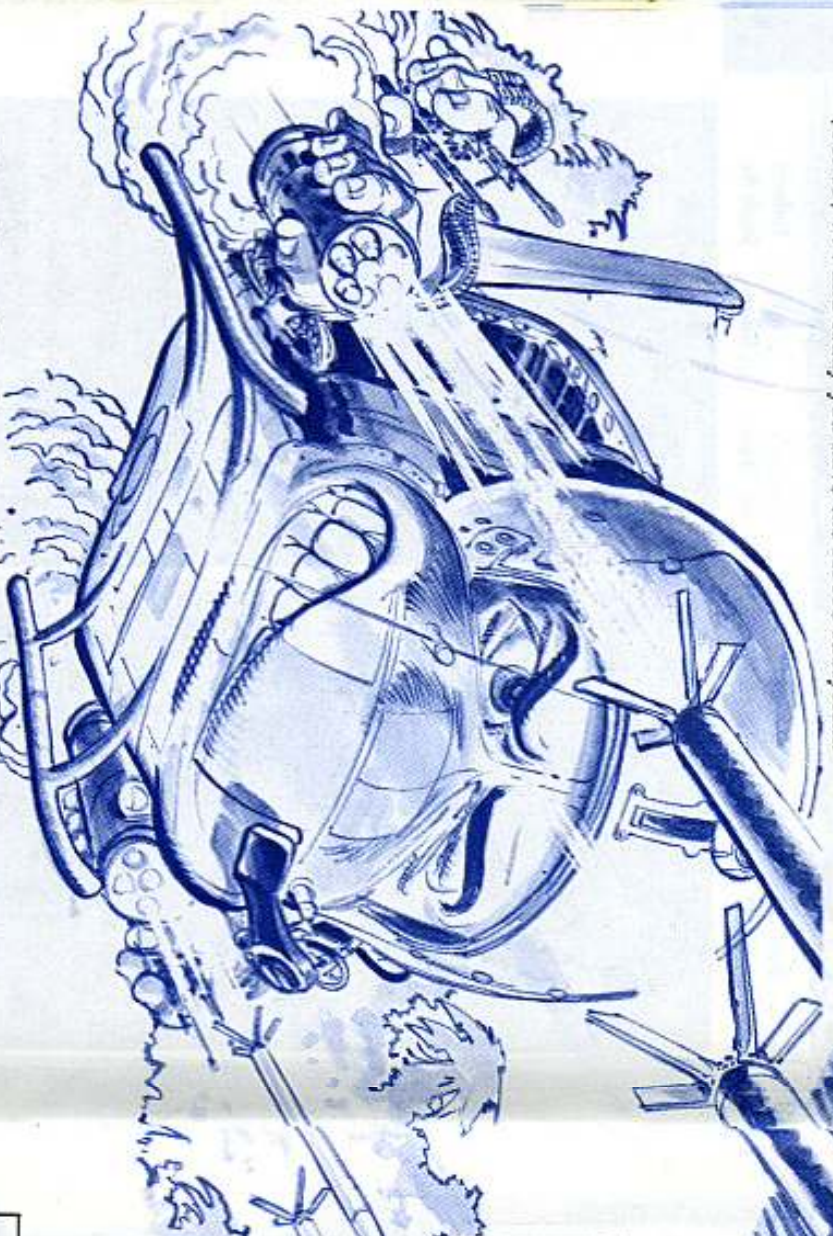


XMI16 SUBSYSTEM:

# BORN for BATTLE

So one day in Vietnam a couple guys tried out this idea, see. They jury-rigged some 2.75-in rockets to the M6 (quad 7.62-MM machine gun) subsystem. Good old Huey UH-1B put the Numbah One zap on Charlie that day.

Bye and bye this jury rig got to be official through MWO 9-1005-243-30/4 (Oct 65) . . . and today you have the XMI16 subsystem.



Most of the stuff you know about the M3 and the M6 is still good (including a lot of what was in PS 154 and PS 156). But not all of it. For instance, the XMI16 totes a couple different types of launchers, has a beveled-up cartridge drive, an intervalometer and a few other refinements that make it tougher than its ancestors.

This article aims to spotlight some of the potential trouble spots and to offer tips that'll help you MCOs 45J20's and crew chiefs—and yeah, pilots, too,—to keep your battle-born baby lethal.

## RACK and SUPPORT ASSEMBLY

**EXTERNAL STORES**—Loose bolts and nuts; cracked or damaged brackets and braces; loose or cracked cable guards; loose or cracked cable brackets and pulleys.

**ADAPTER ASSEMBLY**—Damaged or loose attaching bolts, busted or bent or missing pins.

**RACK ASSEMBLY**—Dents or cracks in the pod; busted or missing front fairing turn-lock fasteners; loose or cracked sway-brace bracket; cut or damaged lanyard and quick-released pin; loose, bent or cracked ammo chute support-clamp assembly; damaged bore-sight aligning screws; loose sway-brace bolts, damaged pads.

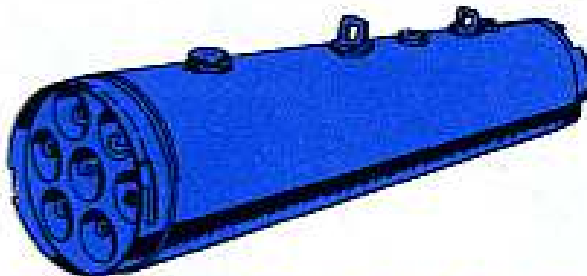


**ELECTRICAL CABLES**—Not plugged in and tightened; bent pins in the connector; frayed or cut or badly-worn wiring, especially near the connections.

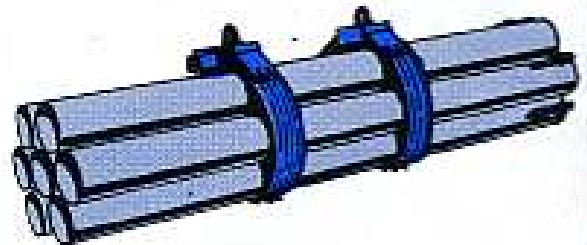
**HYDRAULIC LINES**—Oil leaks from loose connections or cut hoses. And keep your hydraulic stuff clean. Use those rubber dust plugs every time. If dirt gets into these hydraulic lines, it could foul up the chopper as well as the armament system.

# The LAUNCHERS

You'll have either the cylinder-type reusable but non-repairable XM157 or the cluster-type reusable and repairable XM158. They're light, easy to hurt, so be warned. When you inspect 'em, examine each of the 7 tubes in each launcher the same way — with extreme care.



**XM157 LAUNCHER** — Dirty, bent or cracked center contacts; corrosion and rocket residue in the tubes, especially in the rear half; dents in the cylinder that also dent the tubes; bent or loose suspension lugs; missing or beat-up front and rear receptacle covers.



**XM158 LAUNCHER** — Loose (should be hand tight) or damaged suspension lugs; cracks in the hard point and segments; missing, loose or damaged nuts, bolts, pin; torn modification straps; tubes dirty; firing-arm connections loose; busted lock wiring; igniter head dirty.

If any part of the XM157 launcher's badly hurt, the whole thing's got to be scrapped.

You'll find the dope on replacing damaged tubes and other parts of the XM158, together with a list of repair parts, in Change 1 to TM 9-1090-201-12.

## TIPS on CLEANING and LUBING



THE RULE'S SIMPLE...

FIRE ?      CLEAN !!  
TODAY      TODAY

DON'T WAIT UNTIL TOMORROW.

FOR CLEANING INSIDE TUBES



OR



+



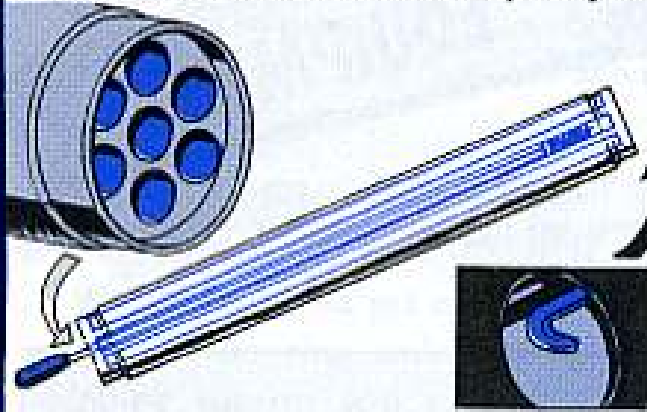
AND



Let the Lube Chart in Change 1 to your TM tell you about outside cleaning.

## XM157

Here's a tip for using the brush in your tubes: On the XM157 — Push in from the front only, on account of the contacts at the rear. Push easy so you



don't hurt the contacts . . . push all the way through to the contacts, then rotate your brush and pull it out again.

## XM158

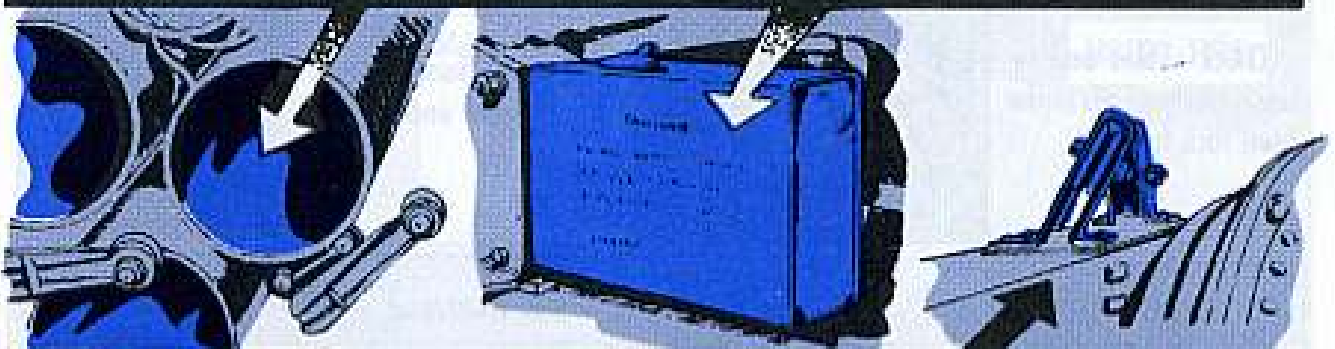
On the XM158 — Once you push the firing arm aside, you can push-pull all the way from the front or rear.



To lube or not to lube — and how much lube?

Big questions around the launcher and rack assembly. Huey really blows up a dust storm with that rotor . . . and dust and grit make a mighty tough abrasive when mixed with oil. So-o-o-o, after you clean all parts like prescribed in the footnotes of your Lube Chart, here're some thumbnail rules on lubing or not lubing:

**1. Never lube the inside of the rocket tubes . . . and never inside the MA-4A bomb rack.**



**2. Always lube — but lightly! — the external surfaces, external pullays, screws, pads, pins and so-forth on the rack and support assembly. Lightly, that is, the way Connie goes over her furniture with a cloth moistened with furniture oil.**

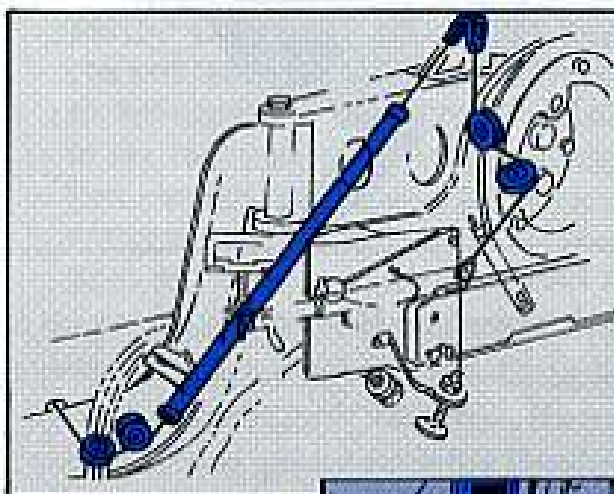
Put a dab of LAW (lubricating oil, weapon, FSN 9150-292-9689, 1-qt can) on a clean rag and then just wipe the parts off.

Keep this same thought in mind when you're cleaning and lubing your machine gun and other components with reciprocating parts. Too much oil invites trouble.

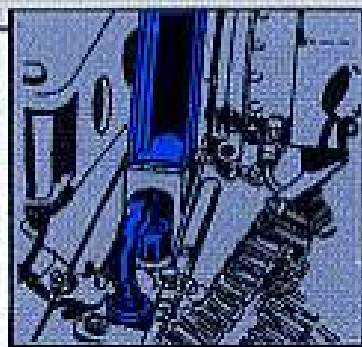
Incidentally, you never touch the inside of the bomb rack. Especially, don't let anybody try to soak it in cleaning solvent. Too many electrical parts in there!

# the JETTISON

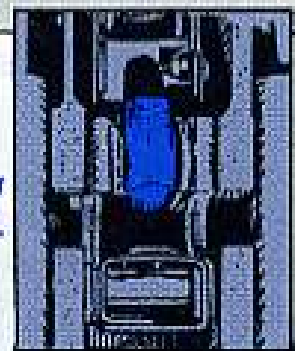
Hairy situations multiply like rabbits if the pilot ever has to drop his load and the launchers refuse to go. Now, it's true the innards of the MA-4A bomb rack are off limits to everybody below the direct support level, get your DSU's to clean and repair 'em — once a week's not too often. Here're a couple other ways you can make for certain the jettison system's OK and will work.



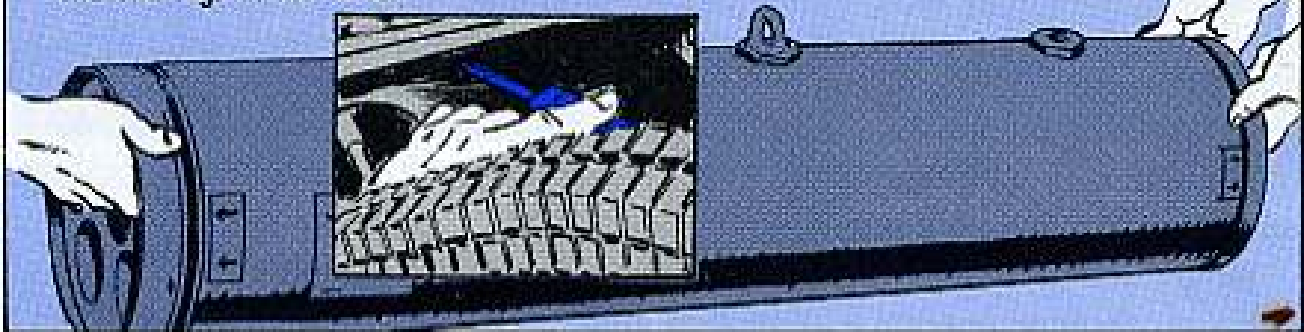
Check cables and release mechanisms under front rack fairing.



Eyeball front and rear hooks from underneath.



**MANUAL JETTISON TEST** — Two-man check: One holds front end while second holds rear end and tugs at the cable.

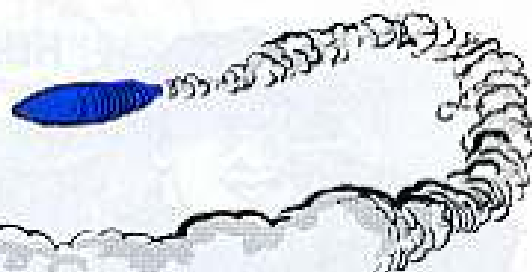


**ELECTRICAL TEST** — Five-man check: Two on each launcher, one in the cabin to turn the JETTISON switch on. Both launchers should release immediately and at the same time.





# ROCKETS



Your XM16 subsystem tosses the same 2.75-in FFAR's used by the XM3 . . . and the rules for using them are about the same.

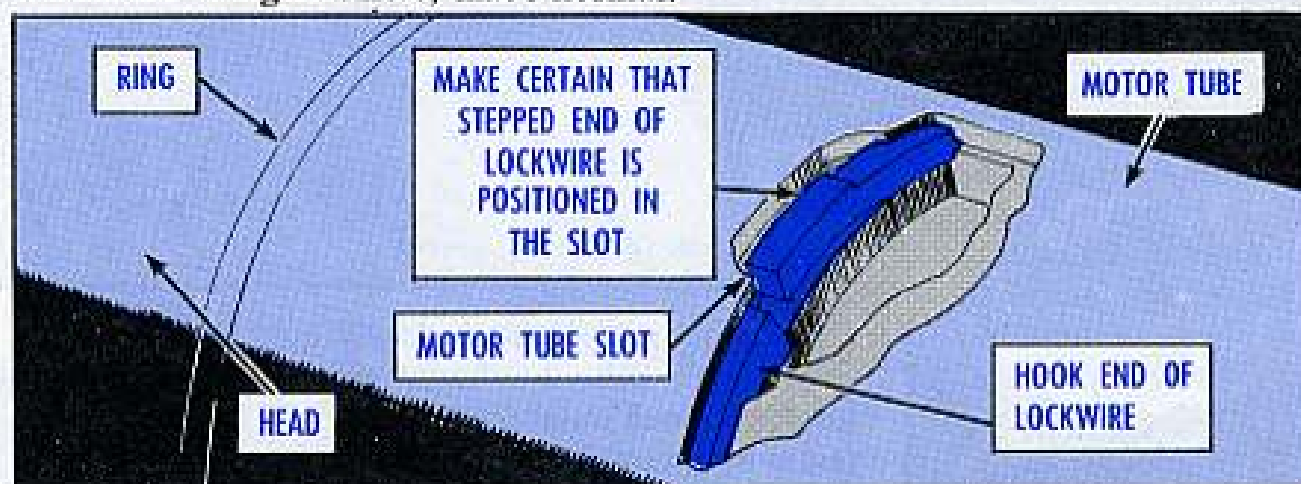
**ROCKETS**—Make sure they're modified (scarffed)—no other kind will do; check 'em for dirt, grease, wetness; see if the lockwire tab's missing or there's a gap between the rocket motor and the warhead after it's been tightened.

Watch out if you get one of those rocket motors with a rubber ring under the lip of the warhead shipping support and a fiber shim between the warhead shipping support and the warhead closure. Throw this ring and shim away before you thread the warhead to the motor—else, they may swell up and cause the warhead to work loose in flight.

**TOSS AWAY  
SHIM AND  
RING**



When you're tightening the warhead to the motor tube, use 2 strap wrenches (FSN 5120-242-3249). Fit the first within 2½ inches of the motor tube and the second around the warhead. Then tighten the head as much as you can without causing the head closure to turn or to force the visible lockwire in or out of the elongated hole in the motor tube lockwire groove. Of course, if the wire moves within the elongated hole, that's normal.



But be real careful you don't force the lockwire tab down into the motor lockwire groove or out of the elongated hole. The enlarged tab traveling through the groove would bulge the motor tube and make it unsafe to fire.

Never end the job without double-checking to see that there's no gap—meaning you can't seat the warhead on the motor tube within a full turn—or that the lockwire tab's out of the elongated hole. Either one automatically makes the rocket NG.



Incidentally, in a combat situation, some guys save time tightening the warhead to the tube by hand — loosening the warhead half a turn, then snapping the motor tight. This is OK in a real emergency, but, even then, doublecheck for tightness, gap and displaced lockwire tab. Doesn't pay to hurry up — and then blow up!

### FIRST THINGS FIRST

The XM157 and XM158 launchers require different loading and unloading procedures, but the steps you take before you get to the loading and unloading stage are exactly alike for both launchers — and, for every guy's sake, never miss out on doing 'em.

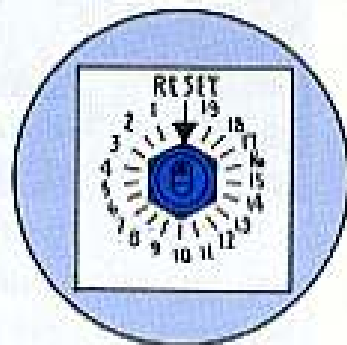
## Before Loading Both Launchers

1. Install the static ground strap, grounding the ship and disconnect the aircraft battery.

2. Make sure all electrical cables on the subsystem are connected right except the launcher connector (breakaway).



3. Check for stray voltage, using the 2.5-VDC range of your multimeter. Connect one lead to the aircraft structure and the other lead to the center firing terminal on each tube in turn. If you get any reading at all at the tube, don't load the rockets. Get Support to replace the rack firing stepper switch assembly — on the double.



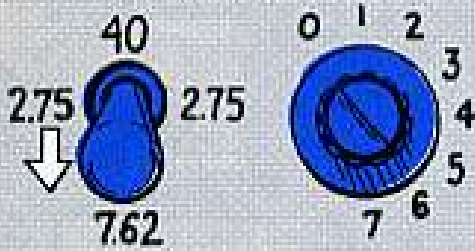
4. Be sure all radio transmitters are turned off before you load or unload.



# Before Loading and Unloading Both Launchers



1. Set the Rockets/Guns switches on the intervalometer to GUNS and the Rockets Pairs Selector switch to "0".



2. Make sure the dot on the rock firing stepper switch is at RESET.



3. Move the OFF-SAFE-ARMED switch on the control panel to OFF.



4. Open the system circuit breakers.

5. Battery switch OFF, disconnect the external power source, if it's connected.

6. Disconnect electrical connectors from the launcher. This is insurance.

## Loading the XM157

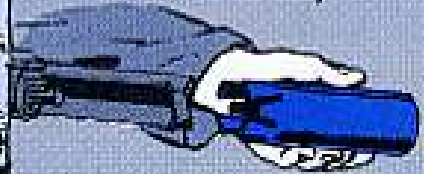
LOAD FROM THE FRONT, BUT STAND TO ONE SIDE!



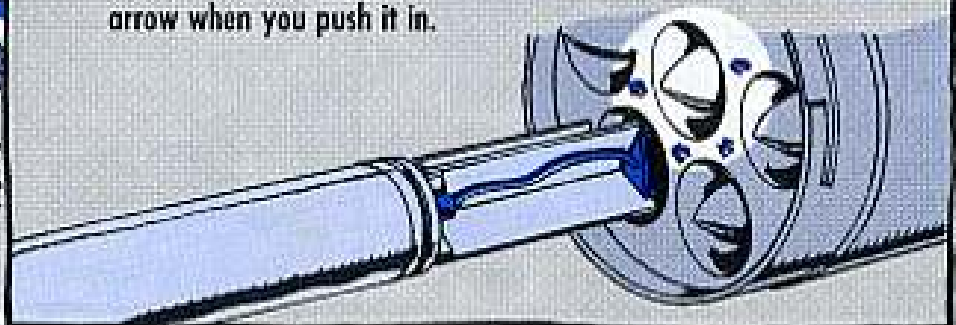
1. Touch the shorting cap to the bare metal of the launcher to drain off any static electricity.



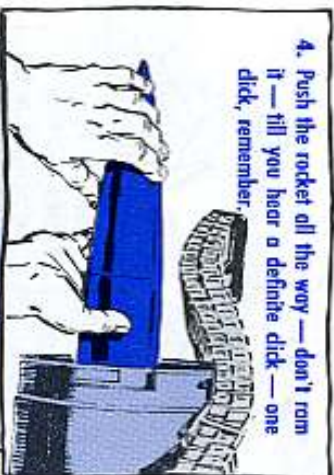
2. Remove the shorting cap — and put it aside for later use. Careful, though, it's aluminum . . . bends easy.



3. Look for the arrow marking on the launcher tube, then insert the rocket, making sure the wire on the rocket is opposite the arrow when you push it in.



4. Push the rocket all the way — don't ram it — till you hear a definite click — one click, remember.



5. Double check at the rear of the launcher to see that the rockets are held tight and are against the rocket firing contacts.



## Unloading the XM157

1. Use a long-shanked screwdriver — or if you have it, one of those wrenches made locally — to push down on the detent inside the tube.

2. At the same time, push forward on the retainer cap with your thumb till the rocket's free.



3. Then pull it gently from the tube.



4. Replace the shorting cap.



## Loading the XM158

You load the XM158 just like you load the 24-tube XM3 — that is, from the rear, like so:

1. Swing the igniter-head assembly clear of the breach and insert the rocket in the tube and push forward till the forward edge of the shorting cap touches the bracket of the tube.



2. Remove the shorting cap.



3. Push the rocket in all the way till you hear the first click.



4. Then grab hold of two fins (not the fin retainer, mind you) and pull the rocket back slightly till you hear a second click.



5. After you hear this second click, flip the igniter on for contact.



## Unloading the XM158

1. Swing the igniter assembly away from the breach.



2. Use a screwdriver to release the spring detent holding the rocket in the tube.



3. Push the rocket forward till it sticks out of the front end of the tube.



4. Pull the rocket gently from the tube and put the shorting cap back on.



**Heads-up Tip:** Never forget, whenever you're loading or unloading your launcher, make sure the launcher's facing away from other aircraft, work areas, ammo dumps, and such-like . . . and make sure nobody's standing in front of or behind it.

You've got to be mighty careful handling these rockets . . . or you might bust the propellant in the rocket motor. This could cause erratic flight and rocket break-up as well as other damage.

### ODDS 'N' ENDS

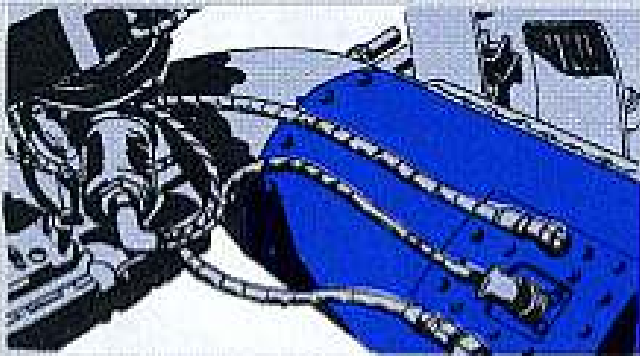
**Supply Tip:** Take it from the guys over there — a 2-bit item is worth a fortune if you need it and don't have it. So, play it smart, don't take a chance on running out of repair parts. Keep up to snuff on everything your organizational pubs authorize . . . and keep 'em safe till you need 'em.

# Your M60CAI Machine Gun



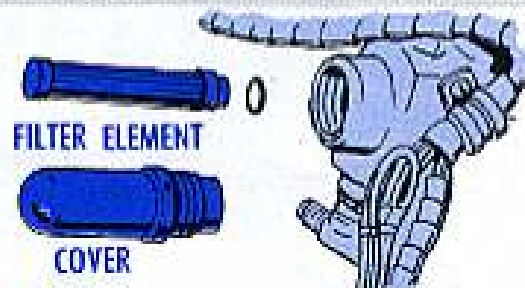
TM 9-1005-243-12 (Oct 63) w/4 changes is still the bible for your quad machine gun — no big change here from the M6 subsystem.

**MOUNT ASSEMBLY** — Frayed, loose, leaking hydraulic hoses and connections; loose, frayed electrical wiring and connections.

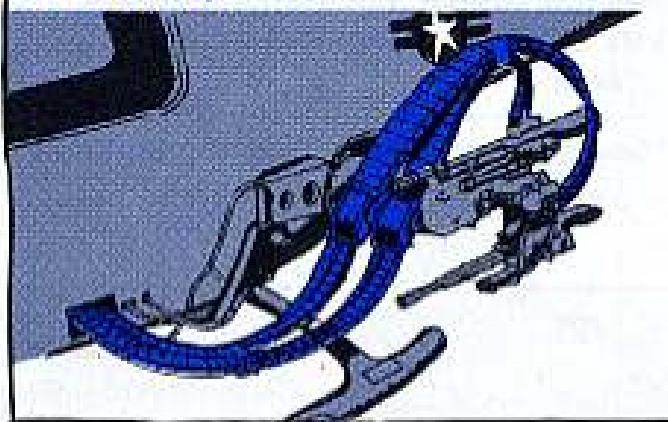


Incidentally, be sure you read and heed para 40b (1) (g) in Change 1 to your M6 pub. The hydraulic motor

filter element inside the mount must be removed, inspected and cleaned during every Periodic (100 hours of aircraft operation). Clean it good with brush and drycleaning solvent, then let it air dry — never use compressed air. If the filter element or the preformed packing is shot, replace it.



**AMMO CHUTES** — Eyeball 'em for stones and sticks and stuff; wrong number of links (pages 6-7 of your M6's TM tells you how many links are needed from the cartridge drives to the gun. From the ammo box to the cartridge drives on the XM16 you need 93 upper LH, 89 lower LH, 85 upper RH and 81 lower RH).



Speaking of chuting—which way should the open side face, up or down? Your pubs show both of the front

chutes with the open side up and both of the rear chutes with the open side down.

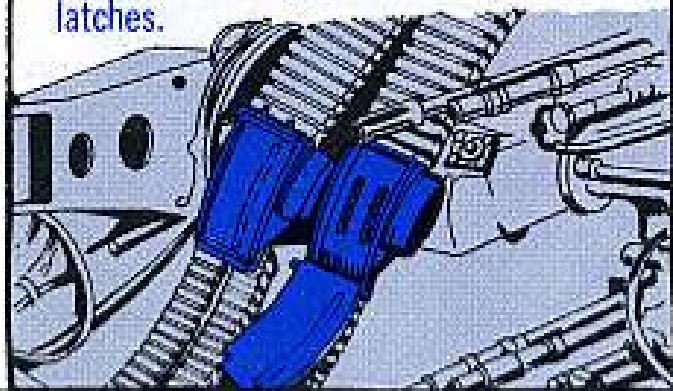
You'd be smart to keep yours this way.

But some outfits face the rear chutes up—especially the one running from the drive motor to the lower gun. They say it's easier this way to see and control the rounds after they pass the drive motor.

But they also use this system only when operating in treeless, barren, sandy country. An up-facing chute like this is likely to catch sticks and stuff if you use it in brushy, rice-paddy country.



**CARTRIDGE DRIVE** — Chipped or badly worn sprocket teeth; bent or badly worn covers or missing pins; busted or open latches.

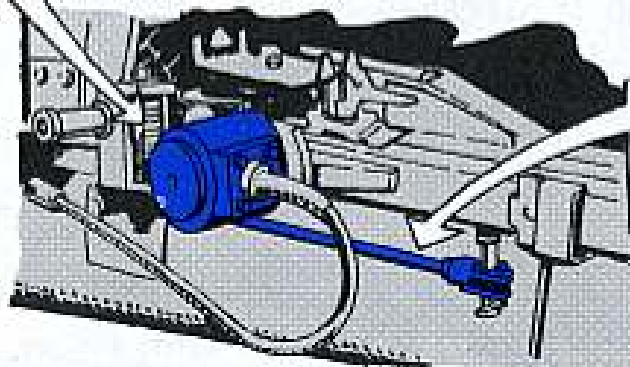


Never fool around with any of these parts. If they don't cut the mustard, replace 'em. Every one of 'em's critical to your weapon's feed system . . . and the mission. F'rinstance, if the cover won't hold the ammo tight against the sprocket, the gun feeding could stop or it'd skip feed. Then the sprocket won't pull and you may end up with a bad ammo jam.

**SOLENOID**—Bent pins in the male plug and loose connections to the control plug.

**MAGAZINE BRACKET ASSEMBLY**—Missing springs or pins; busted ears.

The solenoid cable should be the last thing you put on when the gun's mounted, and the first thing to come off when the gun's dismantled.

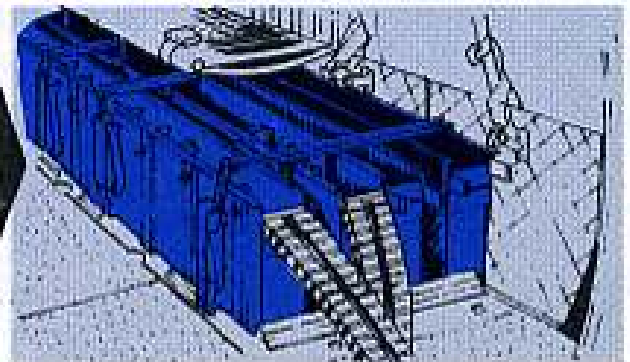


**CHARGER ROD**—Missing cotter pin or washer in the retainer pin.

**DEFLECTOR SHIELD**—Loose, badly bent.

## Inside the SHIP

**AMMO BOXES** — Dents that'd keep the ammo from feeding right; loose or missing screws in box trays; tiedown straps too loose or too tight causing the ammo to bind in the box by pulling the sides of the box together.



The insides of these boxes are coated with a dry lubricant to help the ammo slide easier. This stuff won't stand up against grease and oil, so watch it with

that lube. Of course, if the dry lubricant wears off, Support can respray and re-bake it on for you.

**PUBLICATIONS** — You need a bunch of 'em for a combination subsystem like the XM16 — and you'd better have (and use) 'em all. Here's what you should have:

XM16 Subsystem: TM's 9-1090-201-12 (Sep 65) w/C1 (May 66), TM 9-1090-201-ESC (Sep 65); M6 Subsystem: TM 9-1005-243-12 (Oct 63) w/4 Changes; M60 Machine Gun; TM 9-1005-224-12 (Sep 65).

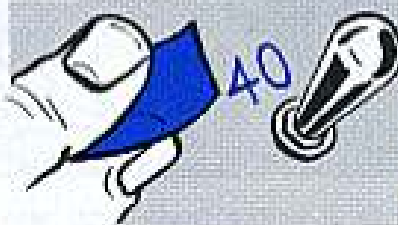
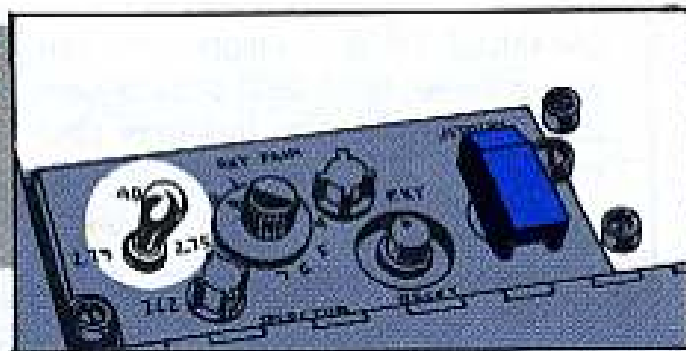
**INTERVALOMETER** — Mounting loose; toggle guard over the JETTISON switch busted.

**Very, very important!**

Doublecheck the Part Number on your intervalometer—is it 11010500 or 11699559?

If it's 11010500—which comes with XM16 mod kits 1 thru 210—watch out! Never use the 40-MM mode as a "safe" position. It's far from safe!

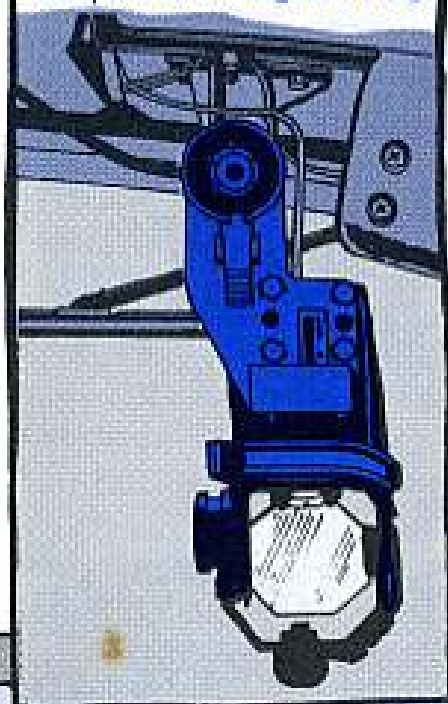
Why? 'Cause if the switch is pushed forward to the 40-Mode and somebody presses the trigger on the cyclic stick, the rockets will go off—just like when the switch is pushed up or down to 2.75 (Rockets).



**COVER 40 WITH RED TAPE UNTIL MWO IS APPLIED.**

On the other hand, if your intervalometer's Part Number is 11699559 (which comes with XM16 mod kits 211 and up), no problem. These have a different switch which will prevent rocket firing in the 40 Mode.

**XM60 PILOT'S SIGHT** — Dirty, scratched, or cracked beam splitter, burned out lamps and damaged wiring.

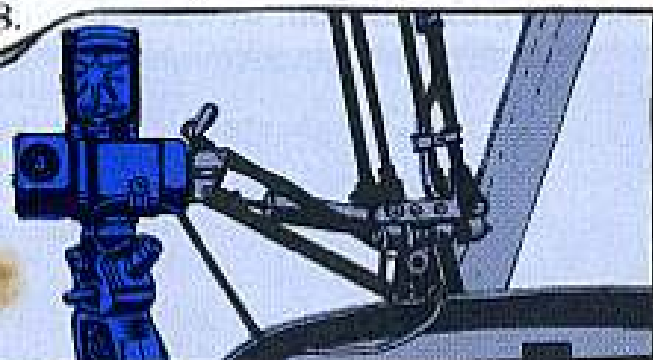


That beam splitter (FSN 1270-912-4232 . . . 1054-1607) is a sitting duck for guys who're not careful getting in and out of the chopper. Warn 'em to watch it. This glass is hard to get sometime. Use a chamois cloth or lens tissue to keep it clean and beware of leaving fingerprints on it.

Here's hot news: MWO 9-1270-205-30/1 (Jun 66) provides a new beamsplitter and shield for your XM60 sight to eliminate beamsplitter breakage. Get Support on the ball. The kits are available.

When you check the lamp, make sure both filaments are good. The second filament is sort of back-up support in case the first one conks out on a mission. Keep a supply of lamps on hand, too. They come under FSN 6240-635-7978.

**GUNNER'S SIGHTING STATION** — Dirty glass and shade; looseness or damage in the sight and grip assembly.



**JOE'S**  
DOPE

**MWO**  
OR  
**BUST**

HERE  
I  
AM TO  
SAVE  
THE  
DAY!

HERE'S  
YOUR  
REPLACEMENT,  
SARGE!!

?

WHEN'S THE  
LAST TIME YOU  
INSTALLED AN  
MWO ON THAT  
CAN?

MWO?? ... WHO'S  
GOT TIME?! THE  
OLD MAN DIDN'T  
PUSH, SO WHY  
SWEAT IT!?

WHY, MAN  
**YOU**  
GOT A STAKE  
IN GETTING  
MWO'S  
DONE PRONTO!

ME?





WELL, JUST WHY DO YOU THINK THEY ORDER MODIFICATIONS ?

O-R-D-E-R ??? I THOUGHT IT WAS A "SUGGESTION"



MAN, THESE ARE **ORDERS** ... LEMME READ YOU FROM **AR 750-5**... SAYS HERE, Army modification work orders... are Department of the Army directives and their application is... **GET THIS, ... mandatory!!**

SO, IT'S THE OLD MAN'S WORRY!



NOT ENTIRELY... THE REASON FOR AN **MWO** IN THE FIRST PLACE IS TO ASSURE THE **SAFETY** OF THE OPERATORS ... TO **IMPROVE** COMBAT EFFECTIVENESS AND **PREVENT** DAMAGE TO THE EQUIPMENT... NOT TO MENTION **KEEPING** IT UP TO LATEST DEVELOPMENTS IN OTHER EQUIPMENT IT'S GOTTA WORK WITH.



**HOLY ESC!!** THAT SURE AFFECTS MY HIDE!!

**ORDERS TO FALL BACK, SARGE!** WE CAN'T HOLD THIS POSITION WITH WHAT WE'VE GOT!!



BUT SARGE, WHAT CAN I DO?

KEEP YOUR HEAD DOWN, I'LL EXPLAIN LATER!

**LATER**

HEY, CONNIE, COULD YOU GIVE US A RUNDOWN ON THE MWO BIT?

SURE, LET'S HAVE COFFEE!

FIRST OF ALL ... KEEP IN MIND MWO'S ARE FOR EVERYBODY.

**YOU** WANT UP-TO-DATE EQUIPMENT TO OPERATE.

**COMMANDERS** WANT AN OUTFIT THAT'S FULLY OPERATING ... NO DEADLINERS.



THERE'S NO TIME TO WASTE... IF THERE'S AN URGENT MWO THE EQUIPMENT'S INOPERABLE SO YOU'VE GOTTA APPLY IT IMMEDIATELY... **NORMAL** MWO'S GIVE YOU 6 MONTHS TO DO IT.

BUT WHAT CAN I DO??



WELL, SINCE YOU'VE GOT TO LIVE WITH THE EQUIPMENT— YOU'VE GOT TO KEEP ALERT... KEEP YOUR EYES OPEN, COMPARE YOUR STUFF WITH THE LATEST MODELS... AND FOR CLUES TO THE LATEST MWO'S WATCH FOR THE WEEKLY LIST OF NEW PUBS SENT OUT BY ST. LOUIS, AS WELL AS DA PAM 310-4.



WHEN YOU SPOT ONE, TELL YOUR PLATOON SERGEANT!!... HE'LL HAVE NO TROUBLE GETTING YOU THE NECESSARY KITS THROUGH YOUR SUPPLY SERGEANT.



# Joe's Dope Sheet

Improvements Go On All The Time!!  
So Your Gear Must Keep Up - Stay In Line!  
Apply Your **MWO'S**  
Keep Up - On Your Toes  
They're **ORDERS** To Keep You Just Prime!!



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

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



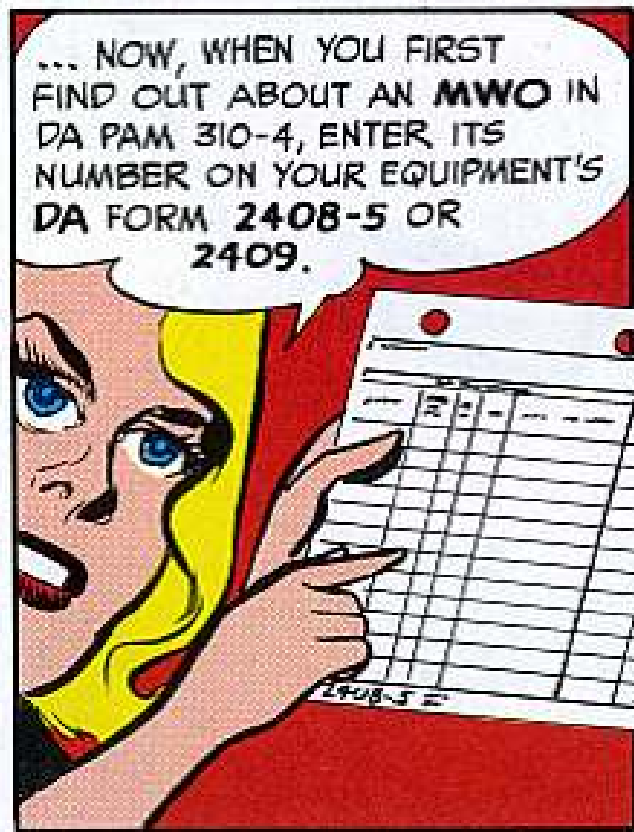
HAWW! WHEN DO I GET TO OPEN THE MAIL?

WELL, I'LL BET YOUR MAINTENANCE SERGEANT GETS TO SEE IT... OR HE SHOULD! ..OR, AT LEAST HE MAKES SURE THAT MWO'S COMING IN GO TO THE MAINTENANCE OFFICER!



WHELL, YAWN, WHEN I HEAR ABOUT ONE I'LL PASS THE WORD, YAWN!

NOT GOOD ENOUGH... YOU'VE GOT TO LOOK AFTER YOURSELF... FIND OUT!! ... ONE WAY IS TO LOOK IN YOUR DA PAM 310-4... LIKE AS NOT YOU'LL FIND A NEW MWO OR TWO!



... NOW, WHEN YOU FIRST FIND OUT ABOUT AN MWO IN DA PAM 310-4, ENTER ITS NUMBER ON YOUR EQUIPMENT'S DA FORM 2408-5 OR 2409.



THEN WHEN IT'S APPLIED - THE MAN WHO APPLIES IT COMPLETES THE RECORD SHOWING THAT IT WAS APPLIED AND SENDS IN A REPORT ON DA FORM 2407!

IF SUPPORT IS TO DO THE MWO, THEN YOU HAVE TO MAKE SURE A DA FORM 2407 WORK REQUEST IS MADE OUT FOR THEM BY YOUR MAINTENANCE NCO!



AT ANY RATE, CHECK YOUR TM 38-750 FOR THE WHOLE POOP ON PROCEDURE!!



HEY...ULP IS THIS COFFEE OR CRANKCASE DRAININGS! UGH!

MAN, IF YOU HADDA USE OLD-FASHIONED EQUIPMENT LIKE MINE... YOU'D...



WHAT ABOUT APPLYING A FEW MWO'S ...I'LL BET THERE'S AT LEAST A FEW OUT ON THAT MACHINE!

WHO'S GOT TIME FOR MWO'S!

I ONLY DO WHUT I HAFTA DO!



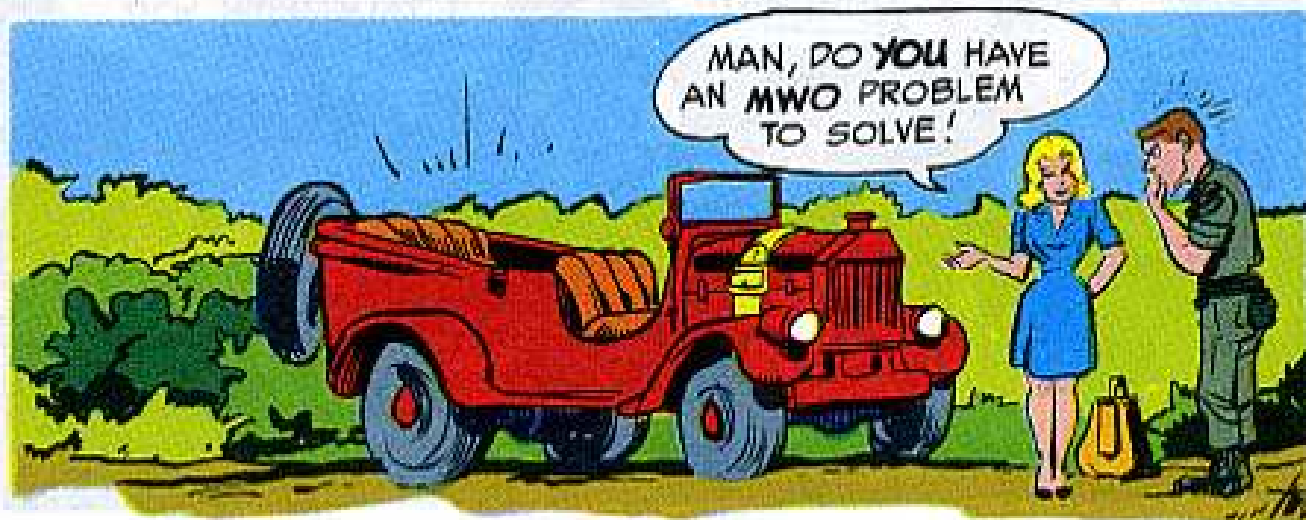
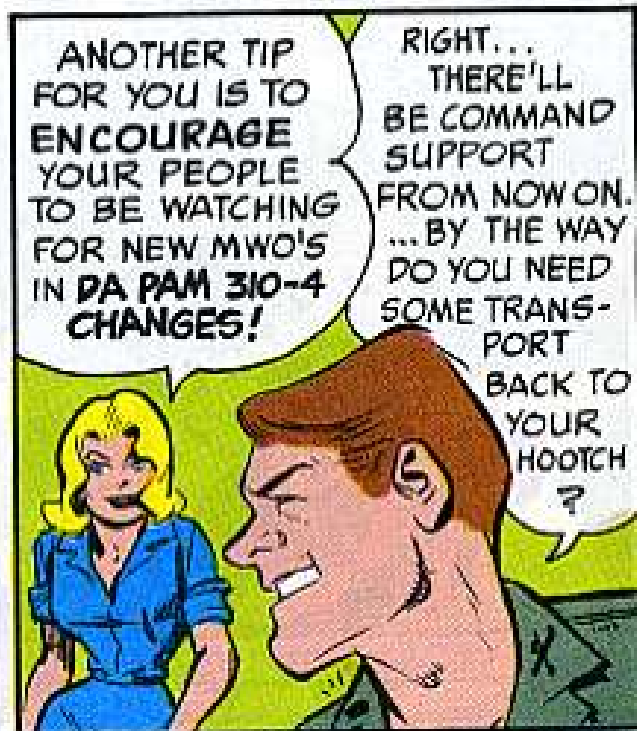
MAN, DON'T YOU REALIZE AN MWO'S AN ORDER!

SO ?

SO TELL HIM, KID!!

ER... CONNIE, CAN'T I TALK WITH YOU IN PRIVATE...





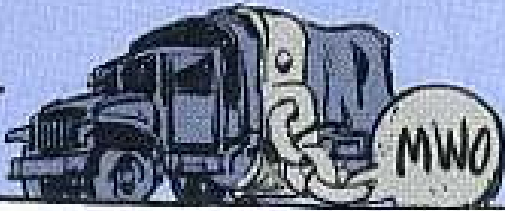
# HEAD OFF WOES WITH MWO'S

MODIFIED OR MORTIFIED? ...

# ZAP!

URGENT MWO'S  
DEADLINE YOUR EQUIPMENT--  
AND THERE'S A CUT-OFF DATE  
FOR APPLYING MOST OF THE  
NORMAL MWO'S.

FIRST OF ALL  
WHEN YOU'RE  
DEALING WITH MWO'S  
THE WORD IS... "GET  
'EM WHILE THEY'RE  
HOT"... AND GET  
'EM DONE!



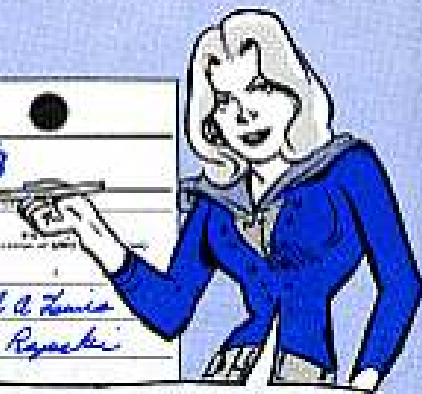
AR 750-5 sets up the current policy on MWO's. And TM 38-750 (Jan 64) and its Change 2 (18 May 65) lay down the rules on recording and reporting MWO's on equipment records.

So, let's line up the latest on MWO records and reports.

WHO RECORDS THE MWO?



MODIFICATIONS REQUIRED				REGISTRATION NUMBER		SERIAL NUMBER	
NEW NUMBER	DATE OF MODIFICATION	PRIORITY	ECH	MWO TITLE AND KIT NUMBER	DATE WHEN APPLIED (MM/DD/YY)	RELEASED BY (NAME/UNIT)	RECEIVED BY (NAME/UNIT)
9-2300-256-20	5 JUL 62	N	2	ELIMINATION OF HOAN	3 NOV 63	COA/4TH BN Paul A. Farnia	
9-2300-202-20	28 SEP 59	N	2	ELIMINATION IDLER WHL	6 SEP 66	PL/1 W 2829TH BN T.C. Repaski	



DA FORM 2408-5, 1 JAN 64

**YOU**, THE OWNER/USER, RECORD ALL CURRENT MWO'S ON DA 2408-5 OR DA 2409.

SECTION D - MODIFICATION					
MODIFICATIONS REQUIRED					
MWO NO.	DATE OF MOD (Day - Month - Year)	PRIORITY	ECH	MWO TITLE OR KIT NUMBER	DATE (DD)
9-2330-300-30/2	15 JUL 66	N	3	INSTALL FRONT MAINT PLATE	

DA FORM 2409, 1 APR 62

... THEN THE OUTFIT THAT APPLIES THE MWO RECORDS THE ACTION TO COMPLETE THE RECORD AND REPORTS IT ON DA 2407.



This applies to current MWO's listed in DA Pam 310-4 and new MWO's as they arrive.

THERE ARE **TWO** WAYS TO HANDLE **RESCINDED MWO'S.**



1. A rescinded MWO is dead. There's no requirement to record, apply or report on a rescinded MWO.

Naturally you'll find it listed on the DA 2408-5 for equipment on which it was applied before it was rescinded. But if it didn't get applied before rescission, draw a line through the entry on DA 2408-5 and write "Rescinded by DA Cir \_\_\_\_\_ dated \_\_\_\_\_" in columns f-g-h and sign in column i. (List the circular that applies.)

2. Or, if the MWO is still needed, ask for instructions from: Commanding General, U.S. Army Materiel Command, ATTN: AMCMA-R, Washington, D. C. 20315.

If the instructions say to apply the rescinded MWO (or get it applied), then you'll record it on DA 2408-5 or DA 2409 and report it on DA 2407 in the same manner as a current MWO.





SOMETIMES MWO'S AND TB LOOK ALIKE!

### IF IT'S MWO, SAY SO

To report the MWO application on DA 2407, you also check the MWO box in Section I.



On the other hand, some TB's are recorded on DA 2408-5 and reported on DA 2407.

These are TB's that call for installation of a kit on your equipment or for a change that's required only for a special use of the equipment (F'rinstance, see TB 9-2300-280-30 Jan 66 ). In these cases you record the TB on DA 2408-5 or DA 2409 — but only at the time it's applied on the equipment — and write "TB" in front of the number to distinguish it from an MWO.

To report the TB application, you check the Maintenance Request box in Section I of DA 2407. (In such cases there's no need to record the TB application on DA 2408-3 or DA 2408-6. Entry on the DA 2408-5 or DA 2409 takes care of the log record and DA 2407 reports it to the national agency.)

### MWO PREVIOUSLY-COMPLIED-WITH

Since the equipment owner (user) is responsible for recording all applicable MWO's on the equipment or component DA 2408-5 or DA 2409, you have to keep a close eye on DA Pam 310-4, and new pubs bulletins if they're available.

If you find that a current MWO applies to your equipment but there's no record of application of the MWO on DA 2408-5 or DA 2409, check to see if the equipment has been modified by a previous owner (user).

When you find the work has been done on the equipment to comply with the MWO, here's the way you record it on DA 2408-5 or DA 2409:

Enter all MWO identification in columns a-b-c-d-e.

Then put the date the MWO was found to be previously complied with in column f. Leave column g blank unless the time required for the application is known. Enter in column h the initials P/C/W (previously complied with) plus the maintenance organization that checked it out. And the man who checks it out signs in column i.



HEY DAD... NOW THINK BACK...DID YOU APPLIAN MWO BACK IN '42 ON THE FOLLOWING ITEMS?



IF  
THE WORK  
HAS BEEN  
DONE... FILL  
OUT THE  
2407.



	* See reverse of file copy for codes and additional data.	PAGE NO.	NO.
<input checked="" type="checkbox"/> MWO	<input type="checkbox"/> EIR		
		5. LOCATION	

An MWO found to be previously applied but not recorded on DA Form 2408-5 should be reported on DA Form 2407. Check the MWO box, and enter data called for in para 3-7.2 of TM 38-750. If data called for in block 20 is unknown, write "Unk" in the spaces that apply.

(This may duplicate in part a report that's already gone in, but your report will make sure that the national agency has complete data on these MWO's.)

### MAKE SURE THEY APPLY

Before you list that MWO on the DA 2408-5 or DA 2409, though, make sure it applies to your equipment. Some apply to all items of a series or single stock number. Others apply only to items with certain serial numbers.

You'll find the word on this in the MWO. So, give the pub the once over with a sharp eye before you start writing.



## URGENT MWO'S



Only 6 MWO's are classified Urgent. How about eyeballing your equipment now to see if any need to be applied?

**MWO 5-6100-200-30/1** (10 Dec 65), Generator Sets, G.E.D., 3-KW, Skid Mounted, using Wisconsin Engine Model MAENLD: Install newly designed connecting rod.

**MWO 5-3431-216-50/1** (23 Mar 66), Welding Machine, Arc, Generator, Gasoline Driven, 300-amp, 115 v, DC, 3-KW, Harnischfeger Model WNG 300B, FSN 3431-021-8696: Reinforce radiator cowl, relocate carburetor air cleaner, and modify engine and magneto frame mountings.

**MWO MED 16** (25 Sep 58), and C1 (16 Feb 59), Modification of Light, Bed, Universal Clamp.

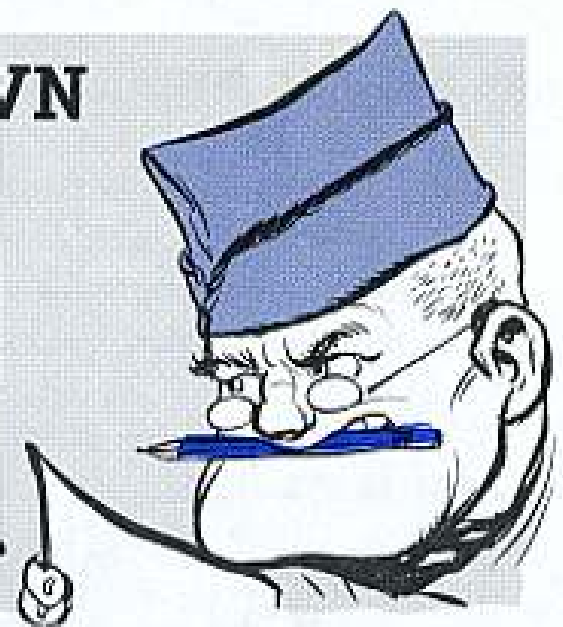
**MWO 9-1055-217-30/1** (22 Jun 66), and Ch 1 (15 Sep 66), Aircraft Rocket Fire Direction Set: Provide automatic reset of stepping switch (Helicopter Armament Subsystem 2.75-in Rocket Launcher XM3 Used on UH-1B Helicopter). This MWO was upgraded from NORMAL TO URGENT by DA Message 780264 (30 Aug 66).

**MWO 9-2300-224-30/15** (7 May 65), Mortar, 107-MM SP, M106A1 (FSN 2350-076-9002): Engine trunnion mount replacement.

**MWO 9-2330-260-40/1** (22 Sep 66), Semitrailer, Lowbed, Heavy Equipment Transporter, XM524E2: Modification of gooseneck pivot shaft.

Your equipment's deadlined till you get these applied to it (See AR 750-5).

# ESC COUNTDOWN



Dear Half-Mast,

Item 9 in TM 9-2350-215-ESC refers to DA 2408-8 for the age of the vehicle in months. But TM 38-750 only calls for "year of manufacture" in block 10 of DA 2408-8. How do I use this entry to get the age in months?

MSG J. W. T.

Dear Sergeant J. W. T.,

It would be better if block 10 of the DA 2408-8 listed month and year of manufacture. But there's a way to get the month the equipment was accepted—if there's a Julian date in block 19.

Table IX. Conversion Table—Calendar Date to Julian Date

Month	Number	Month	Number
January	000	July	181*
February	031	August	212*
March	059*	September	243*
April	090*	October	273*
May	120*	November	304*
June	151*	December	334*

Note that in Fig 4-12-1 of TM 38-750 the equipment was accepted on 2086. A reference to a Julian calendar or Appendix I, Table IX, in the TM tells you that this is March 1962, so March can be considered the month of manufacture.

The equipment data plate also may list the month and year of manufacture or acceptance.

If you can't get the month of manufacture either from the Julian date of acceptance or from the data plate, start your ESC count from 1 July of the year of manufacture in block 10 of DA 2408-8.

Make sure you check each ESC TM, tho. On some equipment that's been overhauled (or rebuilt), the ESC calls for a countdown from the date of depot overhaul (or rebuild) instead of the date of manufacture.

# TELL IT TO YOUR

# DA 2408-2

Oil and grease and antifreeze. These, as well as fuel, are needed to keep your equipment ready — and able — to go.

So, make sure to apply the oil and grease—those slippery friction fighters—just as the LO says. And keep away the ice with antifreeze as spelled out in TB Ord 651 (Apr 64).

'Nuff said! Not quite. Not until you write down these services as spelled out in TM 38-750.

**a**

Col. a — Day, month and year. Julian date may be used if desired.

**b**

Col. b — Hours entry required if item has hour meter. If lube interval is in hours, estimate hours if necessary. Get miles from odometer if so equipped.

**c**

Col. c — Lubricant (or antifreeze) in quarts. (Change fraction to nearest whole number.) Write in components (or antifreeze) as needed to explain entries.

A quart of oil added now and then gets recorded on DA 2408-1, but all major lubrications (periodic or to take care of unusual operations or conditions—including recoil or other hydraulic oil) go on your equipment lubrication record, DA 2408-2. And all antifreeze—whether it's a complete winterization or a small amount added—is recorded on DA 2408-2.

After each lubrication service, make sure you update the entry in block 4 of DA 2408-1 (daily) to show when the next lubrication is due. Make it in pencil 'cause it may have to be changed several times.

When you're writing on DA 2408-2 atop the DA 2408-3 with live carbons, take it E-A-S-Y. Otherwise that lube record entry may penetrate all the way thru to the second copy of DA 2408-3.

And hang onto that DA 2408-2. It stays in the log a year—even though it's filled completely.

**d**

Col. d — Enter C for changed or S for serviced, when applicable, for each filter.

**e**

Col. e — Enter Yes if component listed (at top) received complete lubrication as specified in LO. If not, enter No.

**f**

Col. f — Enter any helpful remarks to explain entries. (For antifreeze, enter degrees F to which protected.)

**g**

Col. g — Your signature.

DATE	MILES	OIL CHANGES (QW)							OIL FILTERS (SVC OR CHNGD)	OIL TEMPS (SVC OR CHNGD)	COMPLETE LUBRICATION	LUBRICATION ORDER NO.	LUBRICATION DATE	SIGNATURE
		ENGINE	TRANS-MISSION	TRANS-AXLE	GEAR BOXES	FINAL DRIVE	AIR CLEANER	ANTI-FREEZE						
TRUCK M151											6F8942	9-23	18 FEB 66	
11 APR 66	5286	6									C			AT 5 SERV. R.L. Davis
10 MAY 66	6267										S			1000-MI R.L. Davis
24 MAY 66	6360				1						S			LEAK, DRAIN R.L. Davis
9 JUN 66	7302										S			BEAR DIF. R.L. Davis
6 JUL 66	8288										S			1000-MI G.L. Poe
1 AUG 66	9315										S			1000-MI R.L. Davis
19 SEP 66	10285										S			1000-MI R.L. Davis
18 OCT 66	11310	6	3		2						C			AT 5 SERV. R.L. Davis
19 OCT 66	11312											3		-10°F R.L. Davis
8 NOV 66	11541													-18°F R.L. Davis

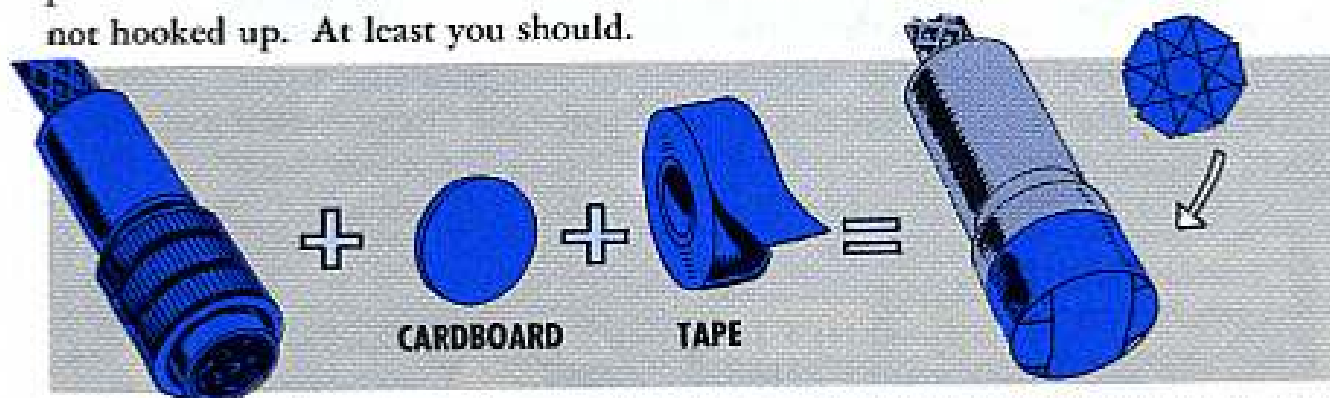


# NIKE HERC

# OTAPES

## A SUBSTITUTE

Just about everywhere you look with your Nike-Hercules system you'll find protective covers used with cable connectors and receptacles — when the cable's not hooked up. At least you should.



And that's where the rub comes in. A cover will take a beating so it can't be used. Or maybe it'll turn up missing. If you can get a replacement cover . . . no sweat. But not every cover has a twin in the supply system.

If you can't get a replacement cover, do the next best thing. Use some tape in its place. Page 4.40 of Fed Cat C5970-IL-A (1 Aug 65) lists a roll, 3/4-in wide and 108-ft long, under FSN 5970-840-8454. It's rubber adhesive electrical insulation tape. Because there's always a chance that the adhesive might pull off the tape and insulate the contacts, use something like cardboard between them and the tape.

### MISSILE BATTERIES, TOO

The insulation tape also works on the electrical connectors for your BA-472/U, BA-485/U and BA-485A/U missile batteries — in case you lose the protective cap that comes with each battery.

The tape might not be as handy as a cap, but it sure does keep dirt out of the connector and helps protect the pins. You also want to use cardboard here, too.



# EITHER WAY, BUT

You say you don't know which end is up when it comes to the hydraulic pumping unit mounting bolts on your Nike-Hercules missile?

One time you get a missile with the bolts installed so the head is next to the equipment access door. And next time the locking nut is next to the door. Which is right?

Either way is OK, but it's best to have the nut by the access door to make it easier to torque the nut.



# THERE IS



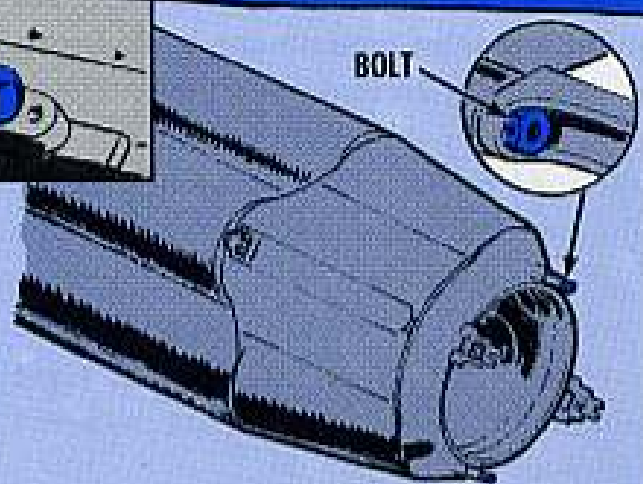
Dear Half-Mast,

Seems to me there ought to be a definite torque value set up for the elevon lock attach bolts for the Nike-Hercules missile. Lotsa other bolts on the missile get torqued to a certain figure . . . and those attach bolts are important when it comes to things like holding up under stress.

MSG W. N.

Dear Sergeant W. N.,

The slide rule people agree with you. They say the bolts should be torqued to 50 lb-in. It's one of the things that hasn't found its way into your TM 9-1410-250-12 (Feb 63)—not yet anyway.



## DSU's JOB

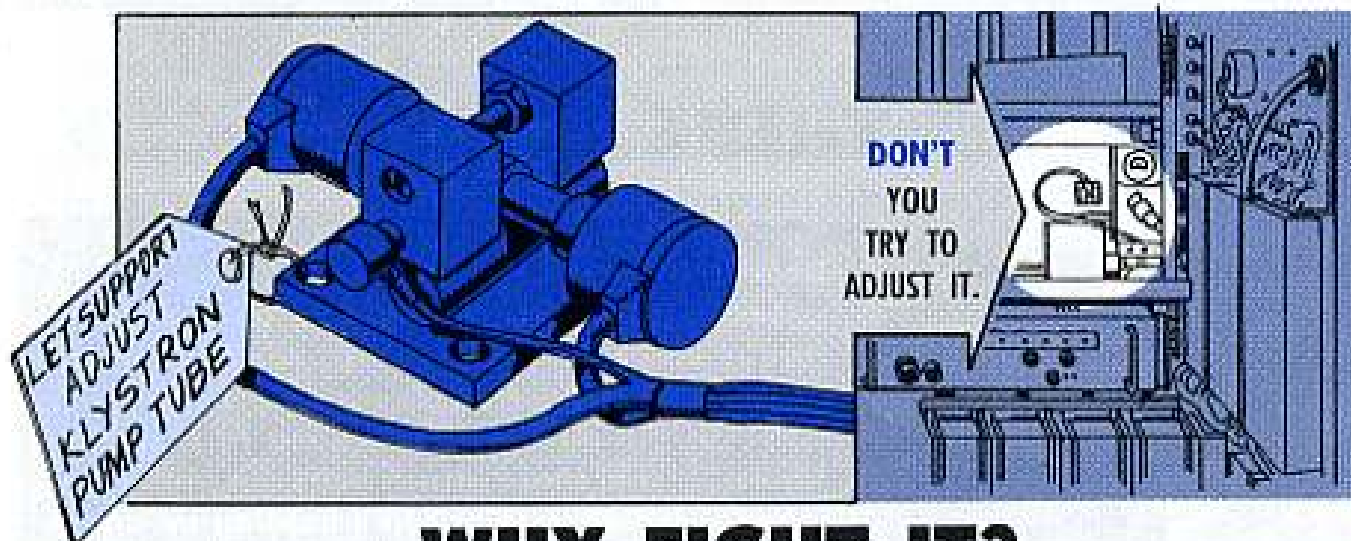


You may be the best violinist at your Nike-Hercules site, but you don't want to fiddle around with the klystron pump tube (VA-242H) in your HIPAR acq radar.

Your TM 9-1430-253-15P/1/1 (Jun 66) lists the tube for you to requisition,

but there's one hitch. It's not tuned to the right frequency when you get it.

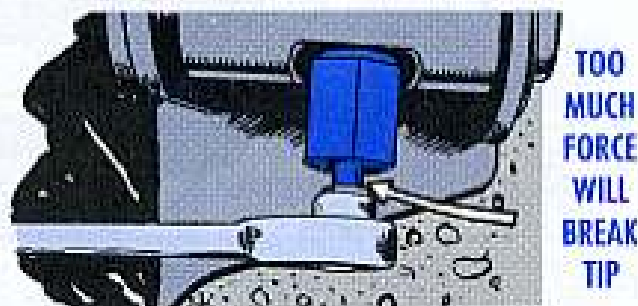
And that's the time for you to leave well enough alone because making the frequency adjustment is strictly a job for your support people. So when you requisition the tube, tell support you'd like to have it adjusted. They'll do the work according to para 18 in TM 9-1430-254-34/12 (10 Dec 63).



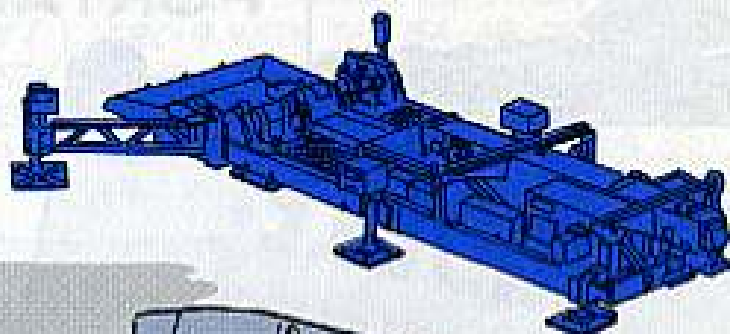
## WHY FIGHT IT?

If you can't get the blast deflector to come up snug against the back frame of your Nike-Hercules mobile launcher, don't blame the ratchet wrench that's fastened to the rod for moving the deflector back and forth.

Some guys do and then get a long pipe that'll fit over the end of the wrench. This gives 'em just the right amount of leverage — to bust the tip of the rod.



No . . . if the deflector won't move, maybe it's sitting on rough ground. Then the answer is to get a shovel and smooth it. If that doesn't do it, ask your support people to look things over.

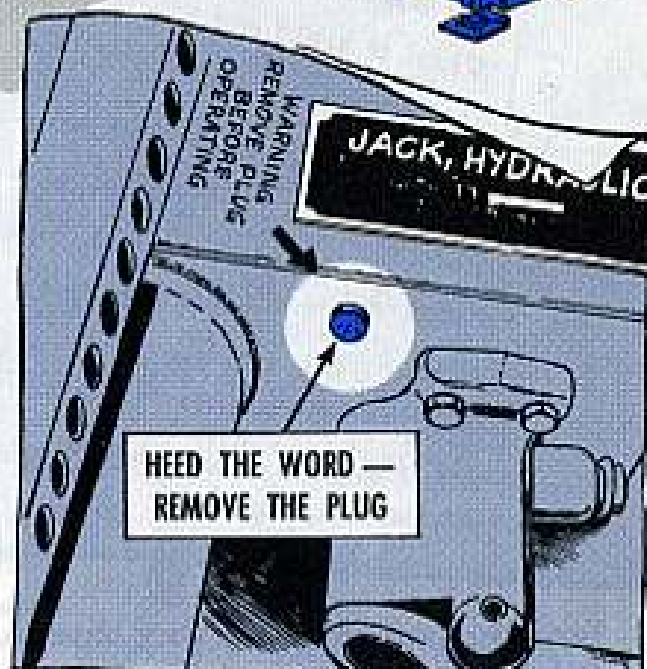


Why fight the problem?

And fight it is just what you do when you don't remove the plug from the reservoir for the hydraulic jacks on your Nike-Hercules mobile launcher.

That plug — it's cork — is strictly a shipping plug. Before the people up the maintenance line send you a new or repaired jack, they put in the plug to keep the hydraulic oil in the reservoir. When the jack is back on the launcher, and you haven't removed the plug, you can go bats trying to lower the jack to the ground because you're pulling against a vacuum. With the plug out, tho, you have air pressure working for you.

The word on removing the plug is in para j(9), on page 210.45 of Change 10 (22 Jul 64) to TM 9-1440-251-10 (27 Jul 59). And when you get a jack,



it could be you'll find a stenciled warning about removing the plug — on the side of the reservoir.

Another thing . . . whenever a jack leaves your outfit, fill the hole with a cork plug or one you might make from a soft piece of wood. Once again . . . the idea is to keep the hydraulic oil from spilling out when the jack is in a position other than vertical.

## GET THE PICTURE?

When it comes to a semiconductor device used in the RF amplifier of the receiver group in your Nike-Hercules Hipar, there is no substitute.

So when you requisition semiconductor, FSN 5961-736-3728, add in big letters that you want the one that comes under MA4507R — not D4075CR.

Using the D4075CR in the RF amplifier can get you big troubles — like no video.







# PORTABLE POTLUCK

## RIDDLE:

**Q.** When is aline not alined?

**A.** When somebody fails to connect 2 points:

1. Radio sets cannot be alined by guesswork;
2. The procedure is not in the operator's or organizational maintenance TM's;
3. Therefore, alining sets is not to be attempted at organizational level.



WHY DON'T YOU JUST STICK TO YOUR LEVEL OF RESPONSIBILITY!



Some support shops say they have to aline almost every portable set they take in, because somebody fiddled with it.

Since you're pointed toward portables, consider these notes on Perk-6's, -8's and so on:

**1** When you put the tubes in, be sure the red dots on the tubes are toe-to-toe with the dots on the tube receptacles. Otherwise, yo' got no go-go.

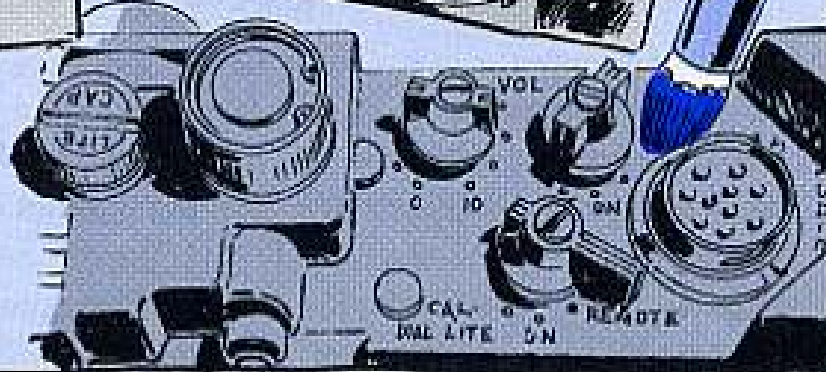


**2** When you clean or shine the antenna base of the portables, don't make with the steel wool. Steel particles from the "wool" can short the antenna. Use an eraser or other non-conductor.



**3**

When spot painting, don't splotch it on like you're painting a house, or for sure you'll clog connectors and receptacles.



## GETTING A GOOD CORD

WHEN YOU'RE TEAMING UP YOUR RT-77 ( ) /GRC-9 WITH THE BA-48 OR BA 317/U BATTERY... TAKE A CLOSE LOOK AT THE CD-1119 BATTERY CORD (FSN 5995-162-6946). IF IT DOESN'T MEET THESE 2 REQUIREMENTS... GET A GOOD ONE!



BE SURE KEY WAY IS BETWEEN PINS A - D, OK?

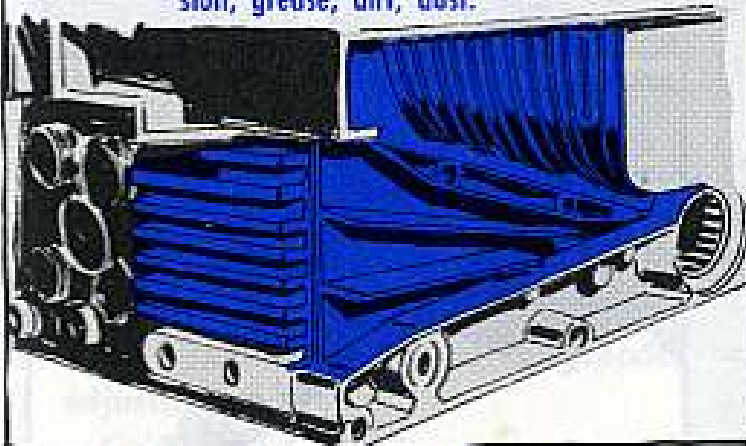
THESE MUST MATCH THE FEMALE BATTERIES' RECEPTACLE.

## HOW TO KEEP A COOL RT-524

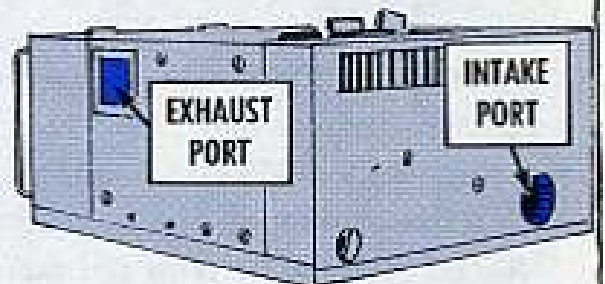
Armored vehicles and heat are combining to make life miserable for the RT-524 receiver-transmitter of AN/VRC-12 series radio sets.

But, a little PM should halt circuit failures caused by overheating.

1. Check the RT's heat exchanger for corrosion, grease, dirt, dust.



2. Be sure the RT's canvas cover is on right and that the air intake and exhaust ports aren't blocked.



3. You may have to leave off the canvas cover if it is blocking the exhaust port.

## COLOR ME . . . CLEAN

That mean corrosive green can make the scene on the cabling in your AN/TRC-24 radio terminal set.

So, you better take a look, f'rinstance, at the RG-type cable from the P-5 plug to the TB-2 terminal in the AM-914 amplifier-converter's C-band receiver tuning head.

To get rid of that grizzly green, turn off power and briskly brush the cable with a small wire or stiff-bristled brush.

Corrosion can collect on the cable under the clamp, and it'll eat at the cable until it shorts out your equipment or damages tubes.

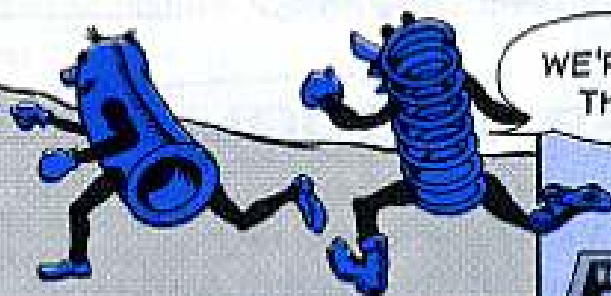
Your best bet's to remove the AM-914's cover and pull gently on the cable until you can see the part that's under



the clamp . . . or release the clamp and take a look-see at the cable.

That's where moisture can collect and corrode the cable.

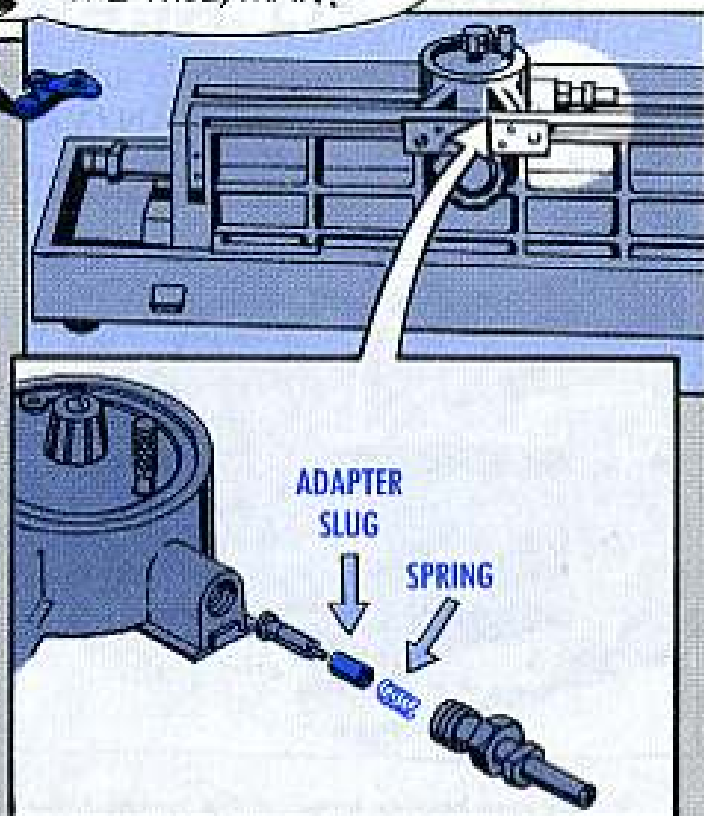
## WATCH FOR AWOL PARTS



A slipped slug or a sprung spring could botch up your IM-92/U coaxial slotted line.

So, when you're switching the bolometer or 1N23B crystal in the radio frequency detector make sure the adapter slug (FSN 5935-049-5104) or the spring hasn't skipped out on you.

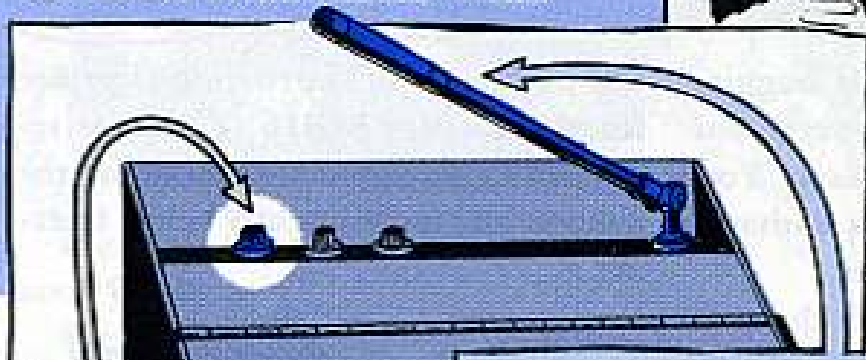
'Cause missing parts in the carriage assembly's RF detector can keep that slotted line waveguide from doing its job.



## PA SET'S DOUBLE TROUBLE

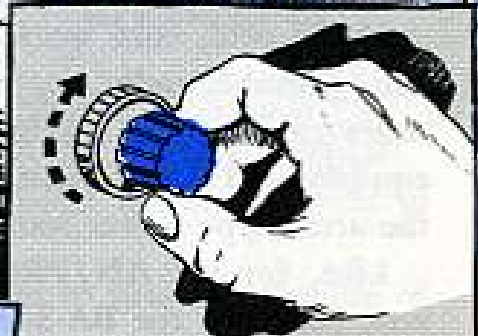
Squawking feedback in your AN/UIH-4 public address set will give you more than a headache.

It'll burn out transistors in the set's pre-amplifier quicker'n you can play the chorus to the Minute Waltz.



Turn the microphone-volume control knob all the way down (counterclockwise) immediately when those gruesome sounds ring out.

Swing the M-126 dynamic mike out of line with the loud-speaker.



Then, turn up the volume control  $\frac{1}{4}$ -turn clockwise and adjust like it says in para 14 in TM 11-5830-236-12 (Sep 63).

If the feedback comes back again, repeat these steps pronto.

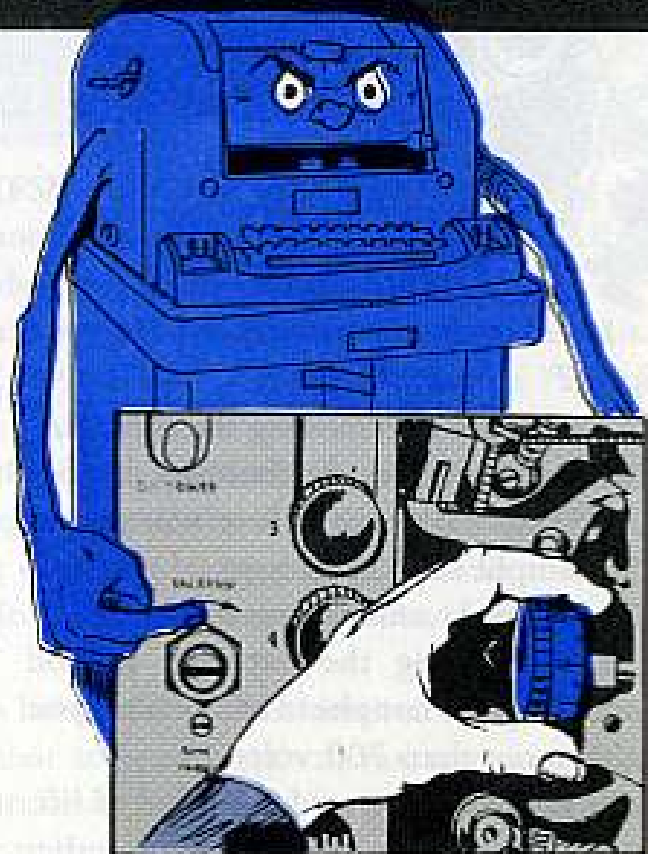
## YOU SHOULD ADJUST TO THIS...

If you're the type who likes to adjust anything turnable on teletypewriter sets, don't!

That kind of "adjusting" naturally costs cash, steals a lot more than the repairman can afford to give, and often puts the TT out of business — which sure wouldn't be helpful if the word had to go out soonest.

Unless your TM spells it out for you, keep away from unneeded or unauthorized adjustments. 'Bout the only thing operators have to worry over on most TT's is motor speed and rangefinder adjustments.

Otherwise, keep the cover on or call the man who knows.



## ARCTIC BATTERIES FOR PORTABLES

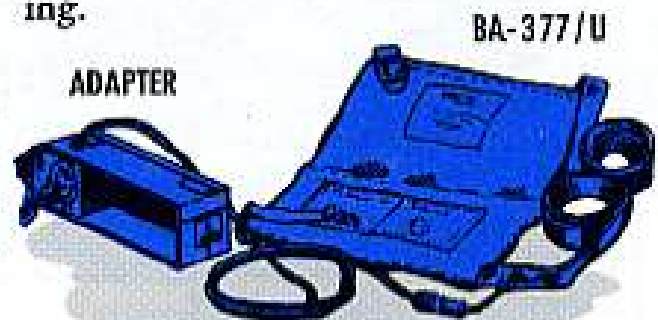
WHERE'S THEM COLD-WEATHER BATTERIES?

I'M LOOKING, I'M LOOKING.

If the cold, cold world is bugging your portable radio set, vest-type batteries can do you much good. Your equipment TM's or changes authorize the arctic-type power sources.

Like, for the AN/PRC-8 thru -10 sets, you need the BA-377/U; for the AN/PRC-6 you need the BA-376/U, and for the AN/PRC-25, you need the BA-398/PRC-25. You can get all the batteries by using SB 11-6 (June 64)

and its Change 1. The routing identifier for the BA-398 is B16. It can be requested by any unit in areas where the temperature is consistently below freezing.



BA-377/U

ADAPTER

## LM-33(1) SHOCKER

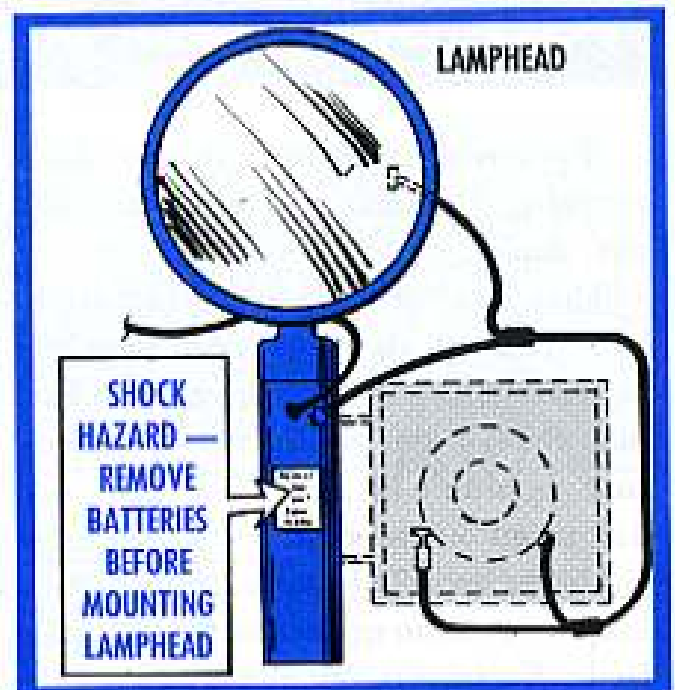


Looking for something to lift your spirit?

Forget about removing the three BA-202 batteries from the flashgun of your LM-33(1) flash unit before you mount the lamphead. Yep, forget it and it'll lift you right off the ground.

Like, leaving the batteries in and mounting the lamphead can bounce you with more than 700 volts.

If you want to avoid that kind of lift, tack a little caution to the flashgun that



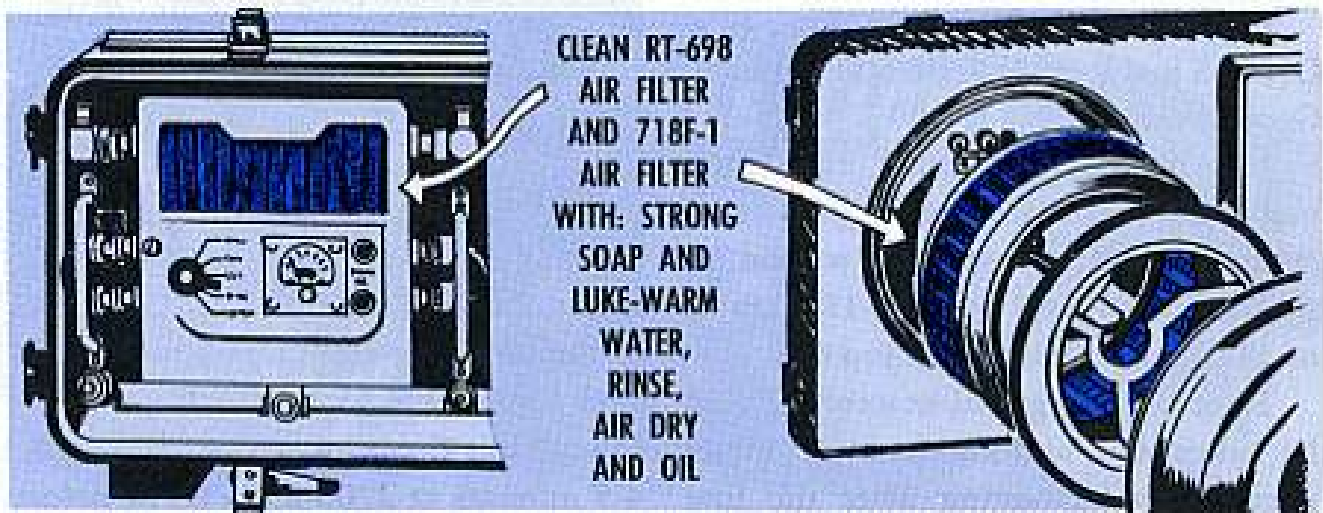
reads like this: "Shock Hazard—Remove Batteries Before Mounting Lamphead."

Naturally, you re-install the batteries as soon as the lamphead is attached.



Dirty air filters got your radio set chokin' to the point where it's about to konk out on you?

Well, bend an eyeball along these lines if you want to brighten the life of your AN/ARC-102 or AN/MRC-95 radio sets.



The RT-698 transceiver's air filter (FSN 4130-060-2966) needs cleaning by your support at every scheduled 100-hour periodic when used with the ARC-102. Clean it monthly or more often when mated in the Mark-95.

Of course, operatin' in dusty areas calls for filter cleanin' at shorter intervals.

The same goes for the filter (FSN 4130-964-4063) in the Mark-95's 718F-1 receiver-transmitter group.

Guides for removing and cleaning the filter with strong soap in lukewarm water and rinsing, air-drying and oiling are spelled out in para 54 and 76 in TM 11-5820-514-12 (Nov 65). Be sure oil is no heavier than SAE 30.

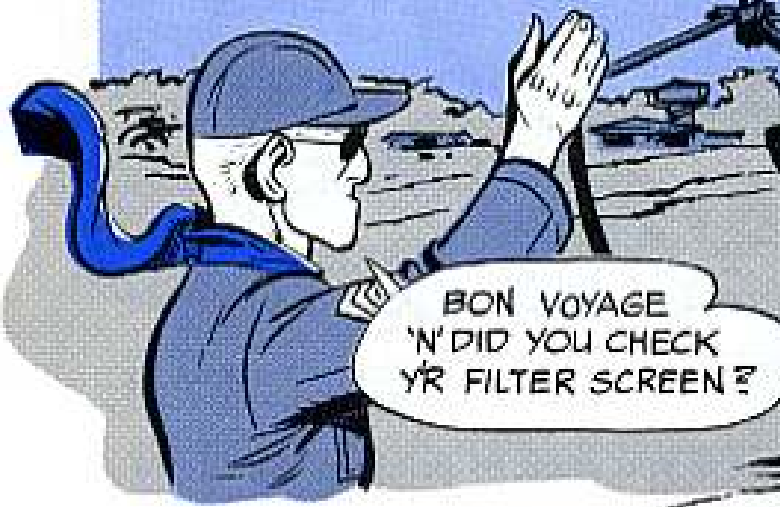
Make sure the excess oil is drained from the filters or it'll be sucked into the equipment.

A coupla extra filters would come in handy for rotatin' instead of waitin'.

While on this air-cooling jag, remember to keep rags, canvas, personal gear or other debris from blocking the air intake or exhaust ports on commo equipment. Having clogged ports is like trying to breathe in a plastic bag.



## TAKE OUT FILTER SCREEN



BON VOYAGE  
'N' DID YOU CHECK  
Y'R FILTER SCREEN?

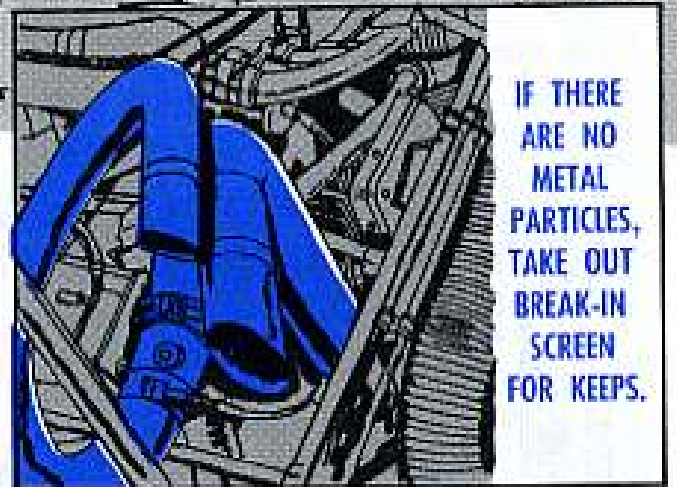
You say your brand-spanking-new OH-13S just entered the traffic pattern? Good show!

Just be sure you crack the Sioux organizational maintenance pub, especially the special inspection section on the turbocharger — page 3-11, area 2, of TM 55-1520-204-20 (9 Jun 66).

The turbocharger filter screen should be taken out and checked for metal particles and clogging after the first 25-hours of operation.

'Tis mighty important that you don't put the screen back because it restricts the oil flow and contributes to oil "coking" if the engine is shut-down when the turbo is red hot.

This "coking" can be a real problem because it cuts down on the efficiency



IF THERE  
ARE NO  
METAL  
PARTICLES,  
TAKE OUT  
BREAK-IN  
SCREEN  
FOR KEEPS.

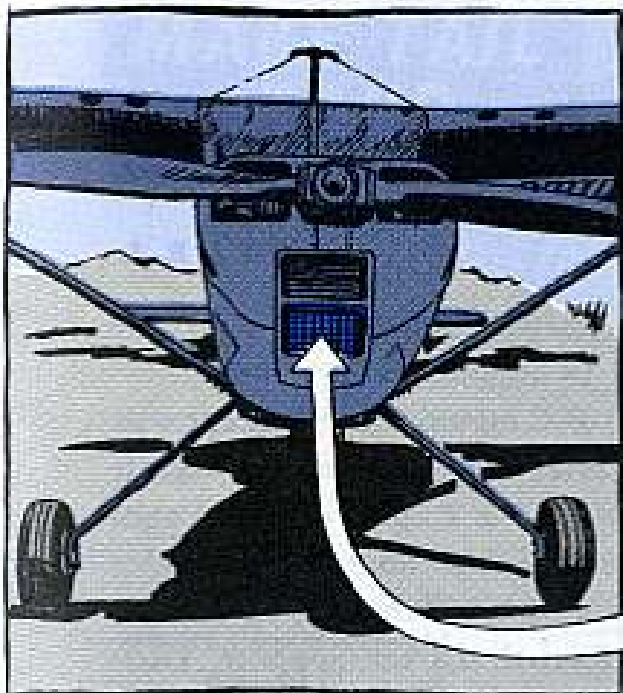
of the unit. For this reason page 3-10, para 3-47 of TM 55-1520-204-10 (1 Jun 65) advises the pilot to run the engine 4-5 minutes at 2200-2300 RPM before shut-down, in order to cool the turbocharger oil.

'Course when you eye the filter screen and don't find any metal particles, you take out the turbocharger break-in screen for keeps. No harm done because a finer mesh engine screen filters all the oil.

## NO STRIPPING, PLEASE!

When you pull a T53 or T55 gas turbine engine from your bird be sure you don't scrounge accessories from it or you'll upset the applecart by creating part shortages at overhaul. TB AVN 24-16, Change 1 (1 May 64) lists all the accessories that should be shipped with your engine.

# CLEAN CARB — NO BARB



Your Bird Dog (O-1) operating from dirt strips or near a semi-hard helipad? H-o-o-o-boy! Then the amount of dust and sand pulled into the carb air filter is probably going to give you a rough running engine . . . or worse!!

Which means you have a special problem. Like maybe the carb air filter needs daily attention — the kind spelled out in Ch 1 (5 Aug 64) to TM 55-1510-202-20 (May 66), Special Inspection, chap 3, sect II, page 3.3.

So-o-o-o, pull, clean and lubricate the filter daily when the dust flies. Keep it clean, man, c-l-e-a-n!

# SHED A LITTLE LIGHT

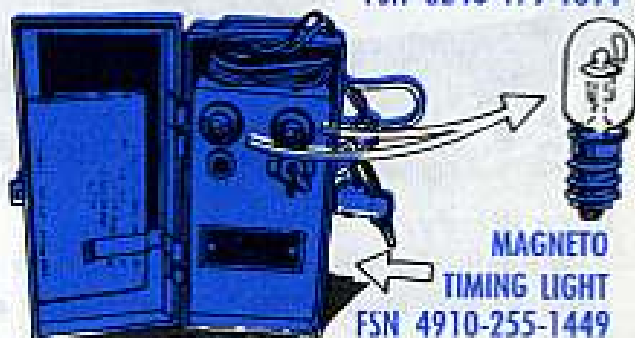


Having trouble finding the right lamps for your aircraft magneto timing light or for the boroscope cylinder light? The neon lamp that's used in the timing light is FSN 6240-179-1814, P/N NE45. It's found in Fed Cat C6200-IL-A (1 Jan 66).

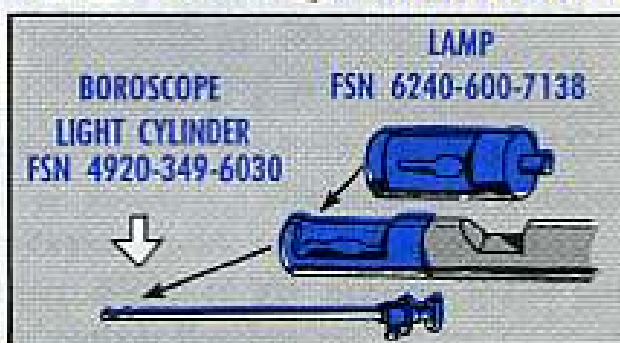
The incandescent lamp for the boroscope light can be ordered with FSN 6240-600-7138, P/N 5405B.

Incidentally, these lights carry new stock numbers. The aircraft magneto timing light is FSN 4910-255-1449 and the boroscope cylinder light is FSN 4920-349-6030.

NEON LAMP  
FSN 6240-179-1814



MAGNETO  
TIMING LIGHT  
FSN 4910-255-1449



LAMP  
BOROSCOPE  
LIGHT CYLINDER  
FSN 4920-349-6030

FSN 6240-600-7138



# NO A-B-C MAINTENANCE



Dear Windy,

I have heard about the A-B-C system of maintenance for Army aircraft. Just what is it?

SP4 J. B. L.

Dear Specialist J. B. L.,

There is no such thing.

The A-B-C maintenance concept was given a trial run by the 11th Air Assault Division back a couple of years ago. But now all aircraft units operate under the system outlined in AR 750-5, with Organizational, Direct Support, General Support and Depot Levels.

Under the A-B-C concept, A was for Organizational, B for Field and C for Depot Maintenance.

*Windy*

## ABOUT THOSE SLIPPAGE MARKS



Dear Windy,

What's the deal on those yellow painted slippage marks at the swaged ends of our Huey (UH-1B) tail rotor control cables?

Do we touch up the paint or do anything else to them?

Sgt W. D. H.

Dear Sergeant W. D. H.,

Those marks were put on by the manufacturer to show any slippage of the cable in the terminal.

If the paint is about shot, you can touch it up with ye ole paint brush according to the poop in TM 55-405-3, page 14, para 18a (May 62). Naturally, you keep an eye on 'em and yell if there's any slippage.

*Windy*

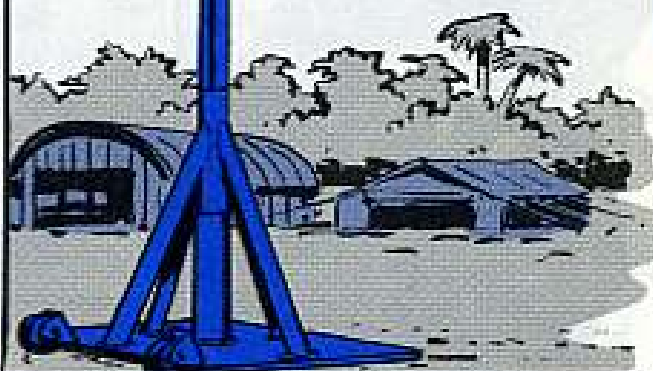
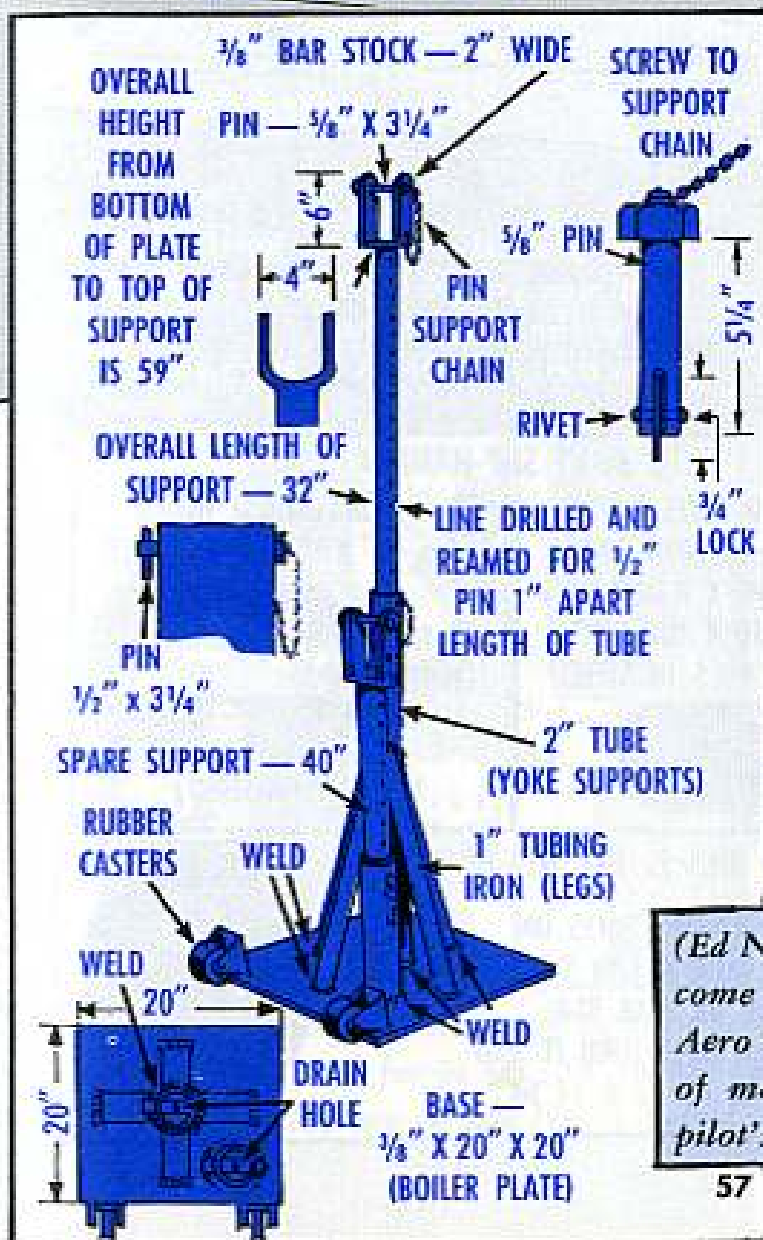
# BIRD TIPSY? MAKE TAIL STAND

Dear Editor,  
There're times when you have to support the tail of your aircraft to pull maintenance — and all of the hydraulic jacks are already in use!

Rather than using work benches or crew-chief stands, that are risky at best, we had our friendly support make this handy-dandy tail stand from scrap metal. The beauty about this stand is that you can adjust it to any height so it can be used on most aircraft. Moving the

stand from place to place is also a breeze because it has rubber casters . . .

works like a charm!  
Alfred Morgan  
Fort Eustis, Va.



(Ed Note — Righto. This stand should also come in handy on a parked bird like the Aero Commander (U-9), where the weight of mechanics will tip the tail unless the pilot's seat is occupied.)

# DOWN



Dear Editor,  
Driving generator ground rods into hard or rocky soil is rough. Sometimes you even find people taking a chance operating without a ground.  
Our shop made a tool to stop that. Here's how it's done:

### TO MAKE SLIP-HAMMER

- 1 GRIND FACES FLAT AND SMOOTH ON 5-IN LONG X 4-IN ROUND BAR STOCK (OR PIECE OF 4 X 4 X 5 IN STEEL)
- 2 DRILL THESE HOLES:  $\frac{1}{4}$ " X 1" DEEP-CENTERED  $\frac{1}{4}$ " THRU CENTER  $\frac{1}{4}$ " DEEP-CENTERED
- 3 THIS IS THE SLUGGING PLATE  
SMOOTH OFF FACES ON 4-IN WIDE X 1-IN THICK BAR OR SLAB BORE  
17/32-IN HOLE THRU IT AND THREAD TO  $\frac{1}{8}$  X 11 NC

# TO EARTH

- 4  $\frac{1}{8}$ -IN COLD ROLL OR STEEL BAR  
 $\frac{1}{8}$  X 11 NC ON BOTH ENDS 4" OF THREAD
- 5 SCREW SLUGGING PLATE ONTO BAR  
LOCK WASHER  
NUT  
TACK WELD
- 6 NEXT WELD HANDLES TO SLIP-HAMMER  
ROUND OFF  
 $\frac{1}{4}$ " ROD  
8" 8"
- 7 SLIDE HAMMER OVER ROD  
PUT ANOTHER  $\frac{1}{8}$ " NUT HERE  
IT'S ALL HELD TOGETHER NOW

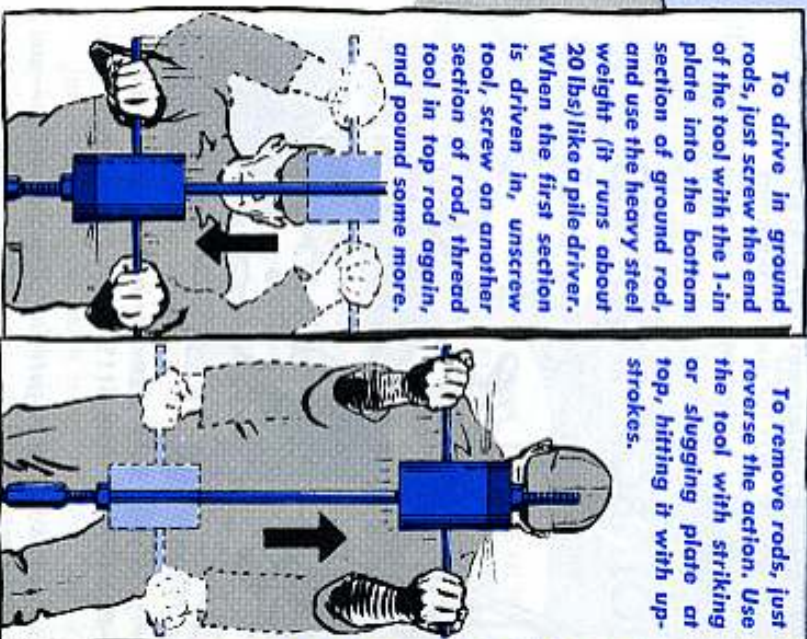


To drive in ground rods, just screw the end of the tool with the 1-in section of ground rod, and use the heavy steel weight (it runs about 20 lbs)/like a pile driver. When the first section is driven in, unscrew tool, screw on another section of rod, thread tool in top rod again, and pound some more.

To remove rods, just reverse the action. Use the tool with striking or slugging plate at top, hitting it with up-strokes.

Thread ends on this tool have to be capped all the time when not in use. Another  $\frac{1}{8}$ -in nut or old ground rod collar will do. Otherwise the threads get ruined from abuse.  
It has never taken us over 5 minutes getting a rod in place, well into subsoil moisture, and we've never found ground hard enough to resist pulling one out with this tool.

SFC J. W. David  
USASCHUR



(Ed Note: Good show. Ought to save lots of time, ground rods, and kilowatt casualties. The die for  $\frac{1}{8}$  x 11NC thread (FSN 5136-189-3221) and the tap (FSN 5136-223-6228) are in the No. 1 Supplemental tool kit.)

## CHECKED YOUR OIL?

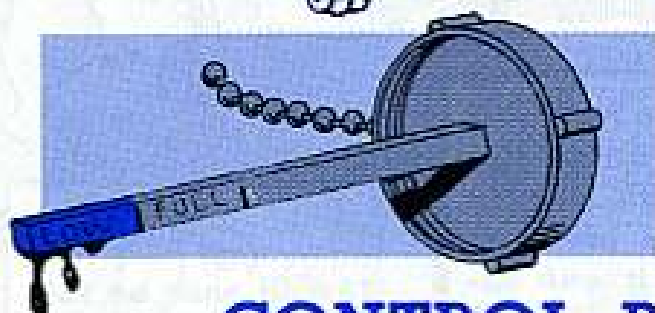


When you crank up a brand-spanking-new gas engine-driven generator it's a good idea to keep a close watch on the oil level in the crankcase.

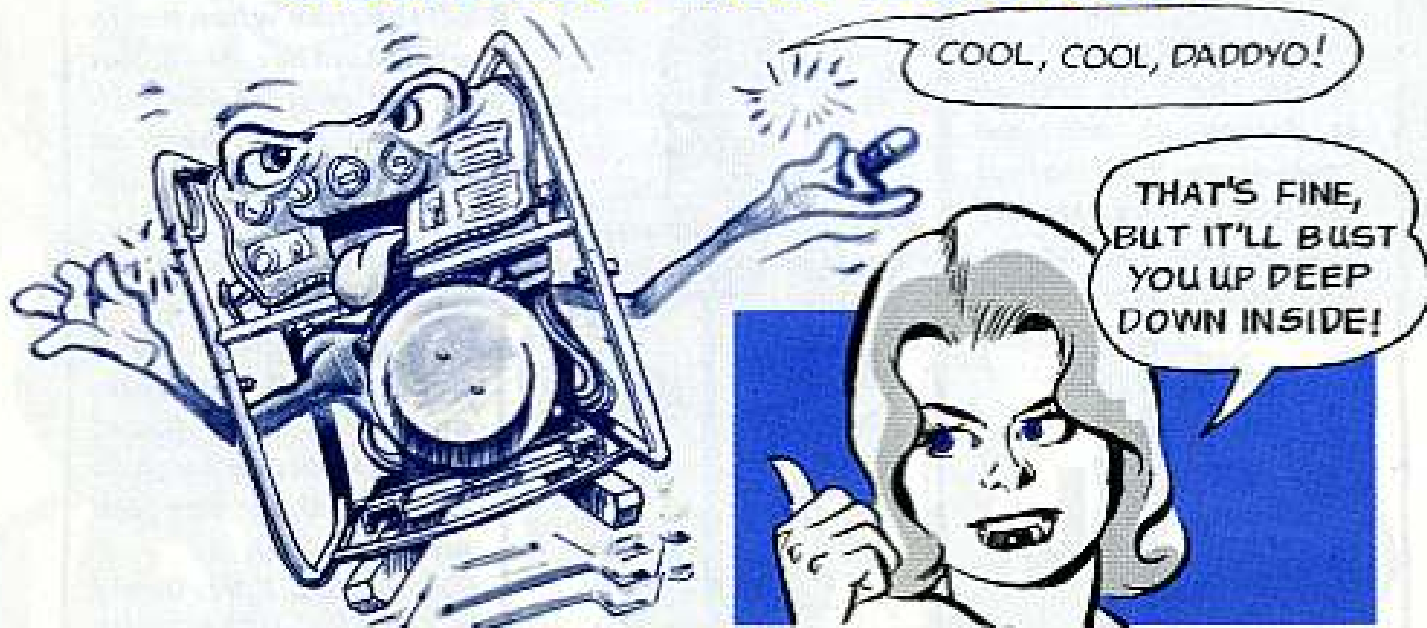
Some engines, like the Wisconsin in the 3-KW Hollingsworth JHGV3B, have been known to gulp oil up to the first 20 or so hours operation.

Remember that factory run-in of the engine may not have completely seated the piston rings. So be sure to check the oil sooner than the 5-hour interval called out in LO 5-6115-298-15 (8 Nov 63) for normal conditions.

After awhile oil consumption will stabilize—sure 'nuff.



## CONTROL BOX BOUNCE



Kilowatts kickin' crossways in your 3KW generator set? If you've got FSN 6115-012-1993, FSN 6115-012-1997, or FSN 6115-075-1640, you could have control box pains.

It's vibration that causes that box to shake apart and chop the wiring—and that ground wire is your only protection.

But to fix, tip support that the rotor and fan gotta be balanced and the burrs taken off the coupling plate to keep it from shakin' apart. Otherwise the results could be shockin'.

# YOUR COMPRESSOR COVERED...?



Yep. TB 742-93-1 (1 Oct 64) Inspection and Test of Air and Other Gas Compressors, also applies to the air compressors used to charge the cylinders for your flamethrowers.

The TB is not listed in the compressor TM's. So, until it is, best make a note of this somewhere on your compressor maintenance SOP. And, check the TB for scheduled inspection and pressure tests. That way you won't be surprised when an inspector pulls the TB on you.

Not mentioned in the TB but covered by it are the AN-M4-series compressors, the M1A1, the M6-D, and, the M6-IR.

## MASK WATERPROOFING

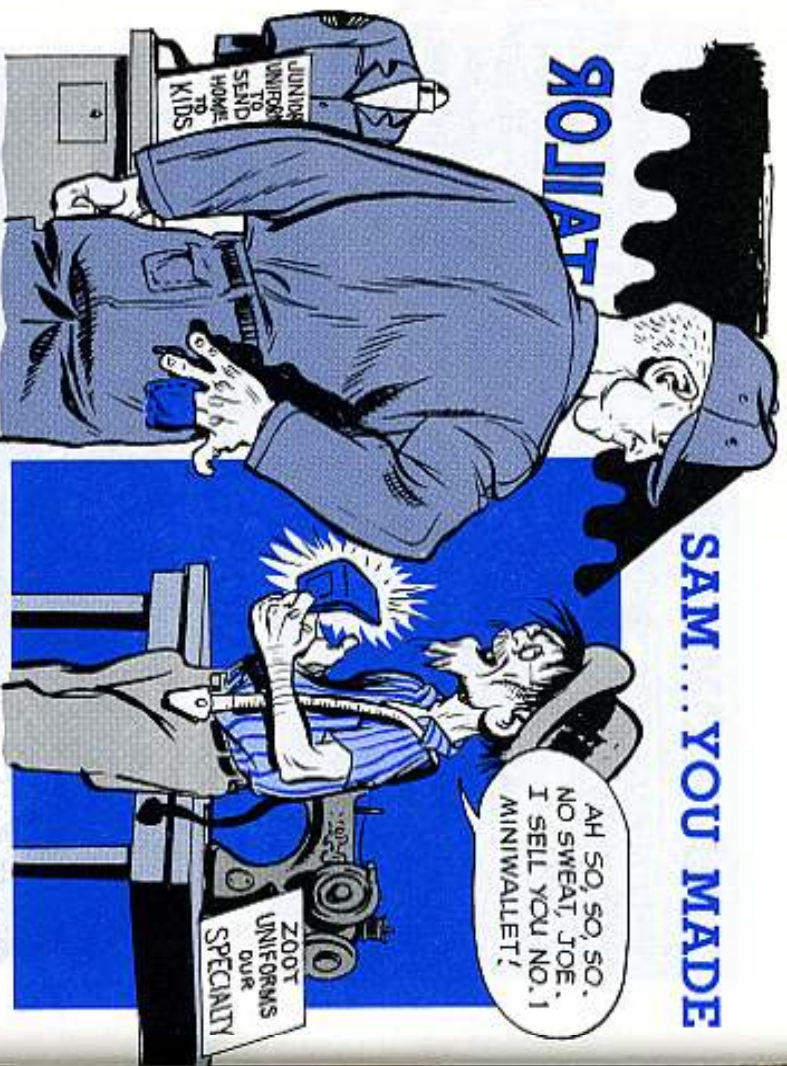


The filter elements in your M17 field protective mask can take some moisture—but, if they ever get soaking wet they have to be replaced. So, before you go wading, fording or otherwise sloshing around in dampness, be sure to wrap your M17 in its plastic waterproofing bag.

Just remember, the mask is not to stay in the bag for more than 24 hours at one stretch . . . and never use the plastic bag for storing food, smokes, or anything else you might chomp on because it could poison you.

The waterproofing bag (FSN 4240-377-9401, page 41, SC 4230/40-IL 31 May 66), comes in a small plastic pouch (approximately 2½-in by 4½-in), and instructions on its use are printed on the bag. When you're not using the bag you can stash it in the bottom of the carrier, or in the pocket for the outserts, if you keep the outserts installed on the mask.

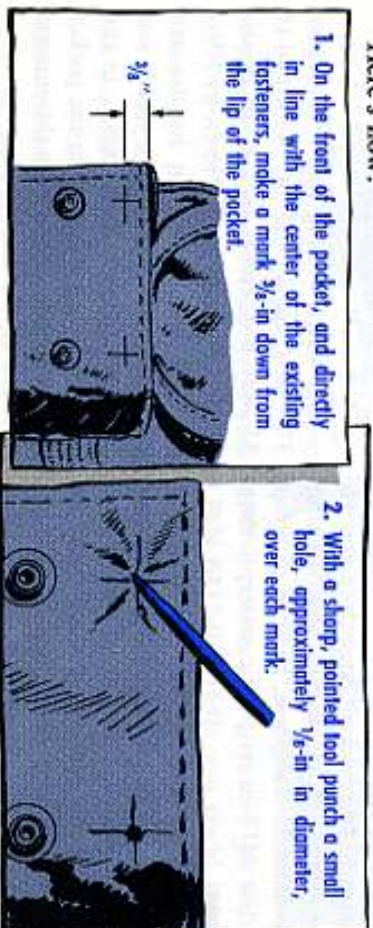
## SAM... YOU MADE



The M13 decontaminating and reimpregnating kit (FSN 4230-907-4828), which replaces the M5-series protection and treatment kits, is a real tight fit for the pocket in your mask carrier. And, some of the pockets may have to grow a little. For example—

The pocket in most M15 carriers, used with the M17 field protective mask, take the new kit OK, but in case a pocket is not deep enough you can fix it by adding 2 snap fasteners which will shorten the flap overlap and lengthen the pocket.

Here's how:



1. On the front of the pocket, and directly in line with the center of the existing fasteners, make a mark  $\frac{3}{8}$ -in down from the lip of the pocket.

2. With a sharp, pointed tool punch a small hole, approximately  $\frac{1}{8}$ -in in diameter, over each mark.

## THE POCKETS TOO SMALL.



3. Working from inside the pocket insert a snap fastener (FSN 5325-721-7424) in each hole.

4. Place the fastener's cinch plate over the stud end showing outside the pocket.

5. Place a piece of metal (something you can hammer on) inside the pocket and directly behind the fasteners. Put a blunt punch on the stud showing through the cinch plate and hammer the punch until the stud is rounded back below the edge of the cinch plate opening.

No sweat on the old fasteners on the front of the pocket. They can just stay there.

The new snap fasteners are available from the Defense Industrial Supply Center, 700 Robbins Avenue, Philadelphia, ATTN: Code 512. Your supply man can quote para 22, TB 3-600 (Aug 66) on his request to supply support.



### THE TANK-MASK CARRIERS

On the M13-carriers, for the M14-series and M25-series tank masks, however, housing the M13 decon and impregnating kit is a bigger chore. The kit pocket on these mask carriers will be relocated by support according to Ch 1 (Aug 66), to MWO 3-913/3.



A selected list of recent publications of interest to Organizational Maintenance Personnel. This is a list compiled from recent Adjutant General's Distribution Center Bulletin. For complete details see DA Pam 310-4 (May 66) and Change 1 and DA Pamphlet 310-6 (Jul 66).

#### TECHNICAL MANUALS

TM 1-0H13-3, Jul, OH-13.  
 TM 3-4240-259-20P, Jul, Filter Unit, Gas-Pol, Tank 20 CFM, M13A1.  
 TM 5-2400-304-ESC, Sep, Whld, Tractor, Indus; DED, Cat 830M, Clark 290M.  
 TM 5-2420-206-20P, Jun, Whld, Tractor, Indus; DED, Clark 290M.  
 TM 5-3695-213-15, Jul, Chain Saw, 18-In Cat, Remington Arms 754G.  
 TM 5-3800-203-ESC, Aug, 20-Ton Crane-Shovel, Trk Mid, Quickway M200, Garwood M20A, M20B, M20A(F), FWD, MUC Carrier.  
 TM 5-3805-218-15, Aug, Earth Moving Towed, Scraper, 18 Cu-Yd Scoop, Delormeau-Washington CT-4.  
 TM 5-3810-232-12, 20P, Jul, Wheel Mid; Crane, 20-Ton, DED, American Hoist 2380.  
 TM 5-5420-203-20, Jul, Launcher, M60A1 Tank Chassis; For Bridge, Arm'd Veh Launched, Scissoring-Type, Clark 80.  
 TM 5-6115-344-15, Aug, Gen Sel, GED, 2 KW, DC, 15 V, Hollingsworth JHGVC W/Clinton Eng 416-1300-010.  
 TM 9-1005-281-ESC, Aug, Armament, Mach Gun, XM27.  
 TM 9-1015-215-12, Jul, M30 Mortar, on Mount M24A1.

TM 9-1400-426-12, Aug, REDEYE.  
 TM 9-1400-500-25P, Aug, Hawk.  
 TM 9-1410-250-15P/3/1, Jun, Nike-Herc, Nike-Herc Imp.  
 TM 9-1410-500-15P/1, Jun, Hawk.  
 TM 9-1425-375-15P, Aug, Fershing.  
 TM 9-1430-250-15P/8/2, Jul, Nike-Herc Imp.  
 TM 9-1430-250-15P/10/2, Sep, Nike-Herc Imp.  
 TM 9-1430-250-15P/20/1, Sep, Nike-Herc.  
 TM 9-1430-254-12/3, Aug, Nike-Herc Imp.  
 TM 9-1430-254-15P/2, Aug, Nike-Herc Imp.  
 TM 9-1430-501-15P/1, Jan, Hawk.  
 TM 9-1430-504-15P/2, Sep, Hawk.  
 TM 9-1430-512-15P/1, Aug, Hawk.  
 TM 9-1440-250-15P/3/1, Jul, Nike-Herc, Nike-Herc Imp.  
 TM 9-1440-500-12/1, Jul, Hawk.  
 TM 9-1440-500-15P/1, Aug, Hawk.  
 TM 9-2320-211-ESC/1, Aug, M41, M54, M55, Cargo Trucks.  
 TM 9-2320-211-ESC/4, Aug, M52/M246, Tractor Truck.  
 TM 9-2320-211-ESC/10, Aug, M51 Pump Truck.  
 TM 9-2320-211-ESC/11, Aug, M543, Wrecker.  
 TM 11-6625-683-15, Aug, Sig Gen AN/URM-127.  
 TM 11-6625-683-25P, Sep, Gen, Sig, AN/URM-127.  
 TM 55-1510-206-20PMD, Sep, CV-2.  
 TM 55-1520-206-20PMD, Sep, VC-2.  
 TM 55-403-2, Jul, All Fixed, Rotor Wing.  
 TM 55-403-9, Aug, All Fixed, Rotor Wing.

#### MISCELLANEOUS

LO 5-3805-209-15-3, Jul, Road Grader, DED, CAT-12.  
 LO 9-4935-500-12, Aug, Hawk.  
 MWO 9-1410-303-20/1, Oct, Sergeant.  
 MWO 9-2300-216-20/10, Oct, M107 SP Gun, M10 Howitzer.  
 MWO 9-2300-276-20/1, Sep, M60, M60A1, M48A3 Tanks.  
 MWO 9-2320-311-20/8, Sep, M61, M63, M55, M52, M543, 5-Ton Trucks.  
 MWO 10-8415-202-20/2, Oct, Flying Helmet, Crash-Type, APH-5 Replace Chin Strap.  
 MWO 11-5805-204/20/1, Aug, 5B-611/MRC, Install 15-147C/Fl.  
 SB 55-10, Aug, Fixed, Rotor Wing.  
 SC 1080-93-CL-E16, Aug, Camouflage Net Set, Field Arly.  
 SC 3820-93-CL-E09, Aug, Press Tool And Compressor Outfit, 230 CFM.  
 SC 4910-95-CL-A80, Aug, Repair Kit, Tubeless Tire.  
 SC 5180-94-CL-E01, Jul, Tool Kit, Elec Equip Repair, M36.  
 TB 9-1000-300-15/11, Aug, EIR and Maint Digest.  
 TB 9-1400-299-10/2, Jul, EIR and Maint Digest.  
 TB 9-1400-324-10/1, Jul, EIR and Maint Digest.  
 TB 9-1400-324-10/2, Jul, EIR and Maint Digest.  
 TB 9-1400-349-10/2, Jul, EIR and Maint Digest.  
 TB 55-1520-209-20/13, Aug, CH-47.  
 TB 55-1520-209-20/15, Aug, CH-47.  
 TB 750-931-1/1, Aug, EIR Digest.  
 TB 750-931-1/2, Aug, EIR Digest.

## THE WINNER

PFC William B. Dudley, HQ & HQ Co, 2nd Inf Div, APO 96224, wrote the best last line to the limerick in PS Issue 166. Here's his complete limerick:

PM takes just minutes a day...  
 That's not a big price to pay  
 For gear that will fight  
 When the pinch becomes tight...  
 And lives must be paid for delay.

A PIN-UP OF ME  
 IS ON THE WAY, BILL--  
 HOPE YOU LIKE IT.



## Connie Rodd's BRIEFS



### *A Good Line*

Tryin' to keep track of those guy lines on the Cap, Flue, Draft, FSN 4520-360-0098, of your space heater, FSN 4520-257-4877, is a job. If they get away or break, order Cord, Cotton, Water and Mildew Resistant, Type 1, Class 3, 1/8-in diameter, FSN 4020-233-6555 (3,000-ft coil). It's listed in Fed Cat C4000-IL-A (Dec 65).

### *Paint Saves Igniter*

Make sure there's a thin coat of black paint on the glow tip of your new heater igniter. Some igniters for Stewart Warner gasoline and multifuel personnel heaters have come thru without this paint that protects the coil from melting. If you get an unpainted igniter, either as an individual item or in a repair kit, dip the barrel 13/16-in (almost to the threads) in Paint, Black Enamel, heat resisting, FSN 8010-297-2013. Any thin, flat black enamel, tho, is better than nothing. Then air dry and make sure the vent holes are open before installing. And remember, Igniter, FSN 2540-319-5933 (PN 8359919), is strictly for gasoline. Igniter, FSN 4520-790-8417 (PN 7324355) is only for multifuel.

### *PU 107 A/U Pubs*

You can now order manuals through your publications channels for your PU 107A/U generator, FSN 6115-669-6674 or FSN 6115-669-6510. You ask for TM 5-5264 (Nov 56) for maintenance and operating instructions, and ENG 7, 8, and 9-5264 for repair parts. Don't ask for extra copies because there're only a few available.

### *Tailpipe for 5-Tonners*

The tailpipe for your M55 or M63C 5-ton truck is the same one used on the M63, M139 and M246 models. It's listed with FSN 2990-591-7696 on page 41 in TM 9-2320-211-20P (Mar 63).

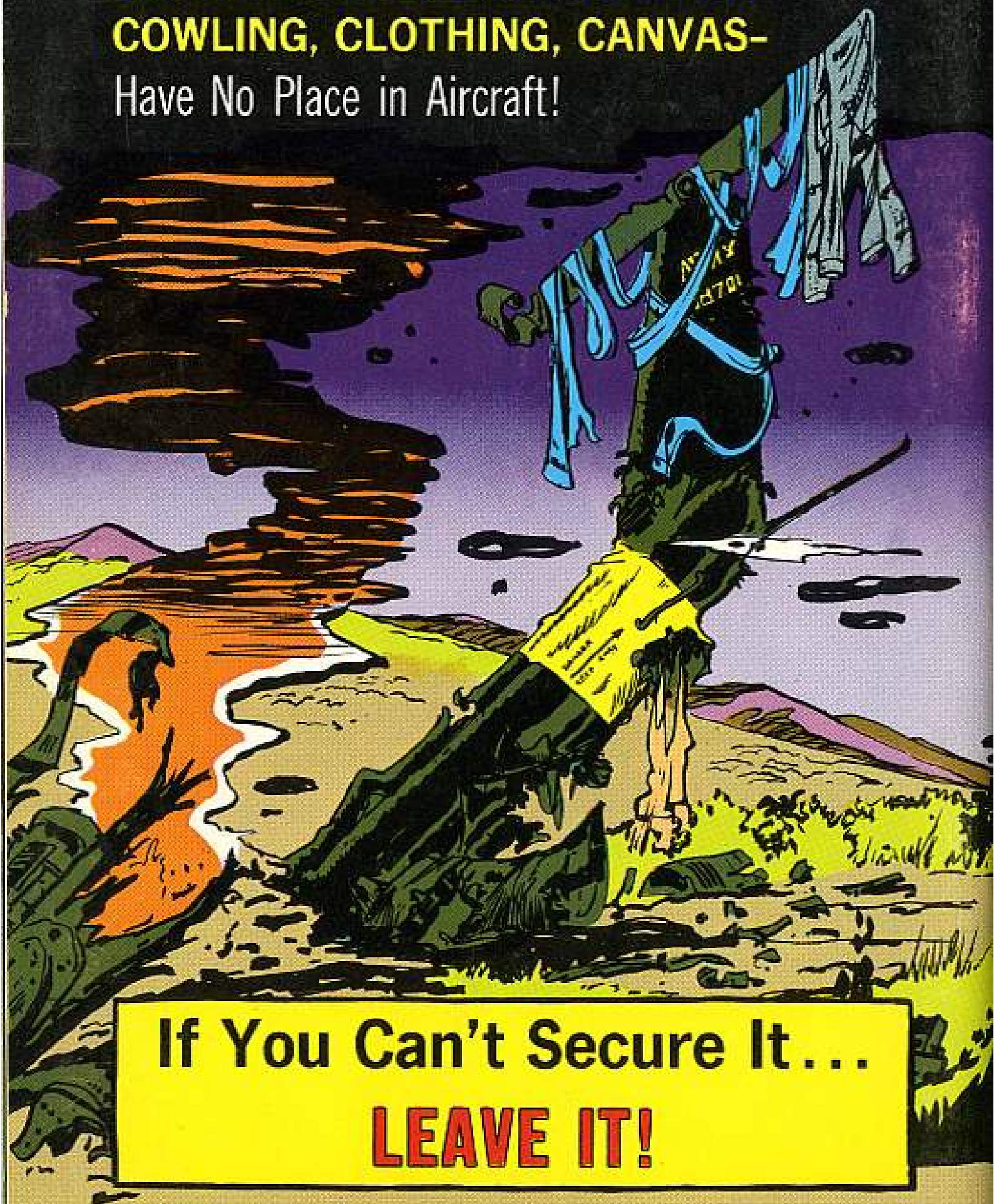
### *Keep that Handset Dull*

Say, out there. If you happened to get a shiny type H-138/U or H-207/U handset, lead it to Dullsville soonest. To kill that slick, bright surface for a nice, safe, unreflecting kind, rub the handset gently with a very fine crocus cloth or something similar—until the thing is dull. Which is the way it should've come to you in the first place.

Would You Stake Your Life <sup>right now</sup> on  
the Condition of Your Equipment?



**LOOSE OBJECTS . . . Like  
COWLING, CLOTHING, CANVAS-**  
Have No Place in Aircraft!



**If You Can't Secure It . . .**

**LEAVE IT!**