

Issue 155

**PS**

1965 Series

HEY, SARGE—  
I JUST FOUND  
YOUR CHOPPERS!!

ONCE  
AGAIN WE  
ARE VICTIMS OF

**FOD.**

TIDY UP  
AND  
AVOID  
**F**OREIGN  
**O**BJECT  
**D**AMAGE

WALT DISNEY

# PLAN AHEAD

*You've got a good piece of equipment — the best, in fact, that Uncle Sam can buy for you.*

*But the best sometimes can be made better. On your Army equipment, this is done by Modification Work Orders — MWO's.*

*When the design engineers find ways to improve a piece of gear that's already in use, they have it modified by an MWO . . . no other way.*

*Modifications on equipment are done by the guys who use it, by the unit mechanics, or by your support*

*Some modifications are done only at Army depots.*

*You say this is fine, dandy and all that stuff, but how do you find time to apply an MWO what with all your regular duties?*

*You've got important missions and operations to perform; you can't stop scootin', shootin' and communitin' just to hook up a new do-whitchit to the reverse callitinhut, now can you? Or let support have your equipment for awhile to do the modification, if it's their job? That'd put it out of action for who knows how long!*

*The deal on this is you've got to*

**PLAN AHEAD!**



**PLAN AHEAD.** Of course, on this plan-ahead bit you'll have to get your own CO involved and your support unit, too.

(Too many outfits have been forgetting that MWO's are orders — Modification Work Orders — signed off by the Army Chief of Staff and The Adjutant General . . . which means everybody's gotta get with it. Besides that, your command no doubt received DA Letter AGAM-P(M) (15 Jan 65) LOG/BI, SUB.



**JECT:** Error Analysis-Application and Reporting Modification Work Orders, which says without jest that all MWO's will be applied.)

First thing you have to do is find out if there's an MWO for your equipment that's not been applied. Your log book DA Form 2408-5 or DA Form 2409 will tell you what's been applied. You then go to the Army Index, DA Pamphlet 310-4 (May 65) to see if there are others.



You'll also have to check for possible MWO's on major components of your equipment such as engines, transmissions and fire control items: they might be listed under the component's publication number rather than under the MWO number for the major item.

Your command headquarters has a list that'll help line up the current

MWO's — including major component MWO's. It's CSGILD 1250, "Equipment Index of MWO," sent out by the Logistics Data Center at Lexington-Bluegrass Army Depot, Lexington, Ky., on a quarterly basis.

Some major unit Commanders extract the MWO lists by types of equipment and provide copies to their smaller units to use to see if they have all MWO's applied.



# SCHEDULE



So you've now found all the MWO's for your equipment. You enter them on the DA Form 2408-5 or 2409 to be applied.

You'll have to order whatever parts or kits are needed for MWO's your own unit applies. When they come in, you schedule your equipment for modification as soon as your mission and operations will allow. Keep in mind

# SCHEDULE



If any of the MWO's call for action by your support unit or by depot, you send a DA Form 2407 work request to support. Then, set up a schedule with them so your mission and operations won't be hurt by equipment out of action for the MWO job. Push your support unit to apply the MWO soonest.

# YOUR WORK



the time compliance requirements for MWO's in AR 750-5. Don't put it off. Then, record the applied MWO on the DA Form 2408-5 or 2409. And you send in a report on it on a DA Form 2407.

# SUPPORT



Then, when all MWO's have been applied to your equipment, your log book form DA 2408-5 or 2409 will have the MWO application record down in black and white.

# DEADLINED AND



Keep in mind that anytime there's an Urgent MWO that's not applied on your equipment, it's deadlined. You can't use it.

Normal MWO's have to be applied within six months after the MWO date, like AR 750-5 says.

# DEADLINES



Depots have to modify equipment they have stored, so don't accept gear from depot or support unless all MWO's are applied.

# RESCINDED



Now, how about any old MWO's that have been rescinded and were never applied to your gear?

Like any order that's been rescinded, they're dead. Forget them.

# PROBLEMS?.



If your outfit has any problems such as getting MWO kits, parts, materials and tools, or if you don't have the men or facilities to do the MWO job, then, like that DA letter mentioned before says, your outfit fires off a request for help. It goes to —

Commanding General  
U. S. Army Supply and Maintenance Command  
ATTN: AMSSM-MR-M/A  
Washington, D. C. 20315

An info copy goes to the Deputy Chief of Staff for Logistics, Department of the Army, ATTN: LOG/BI, Washington, D.C. 20310. The request should

# ..WRITE!



include all the details, like dates, requisition numbers, what kits, tools, facilities and manpower you have. This info will help speed up action for you.

So, to keep your world's best equipment the best all the time, keep up with the MWO's. Never let 'em stack up on you. Plan ahead.

It'll help you keep your equipment combat ready.

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**PS**

THE PREVENTIVE MAINTENANCE MONTHLY

Issue No. 155 1965 Series

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Use of funds for printing of this publication has been approved by Headquarters, Department of the Army, 19 February 1965.

**DISTRIBUTION:** In accordance with requirements submitted on DA Form 124.

*Sgt. Andy Mack,  
PS Magazine,  
Fort Knox, Ky.  
40121*

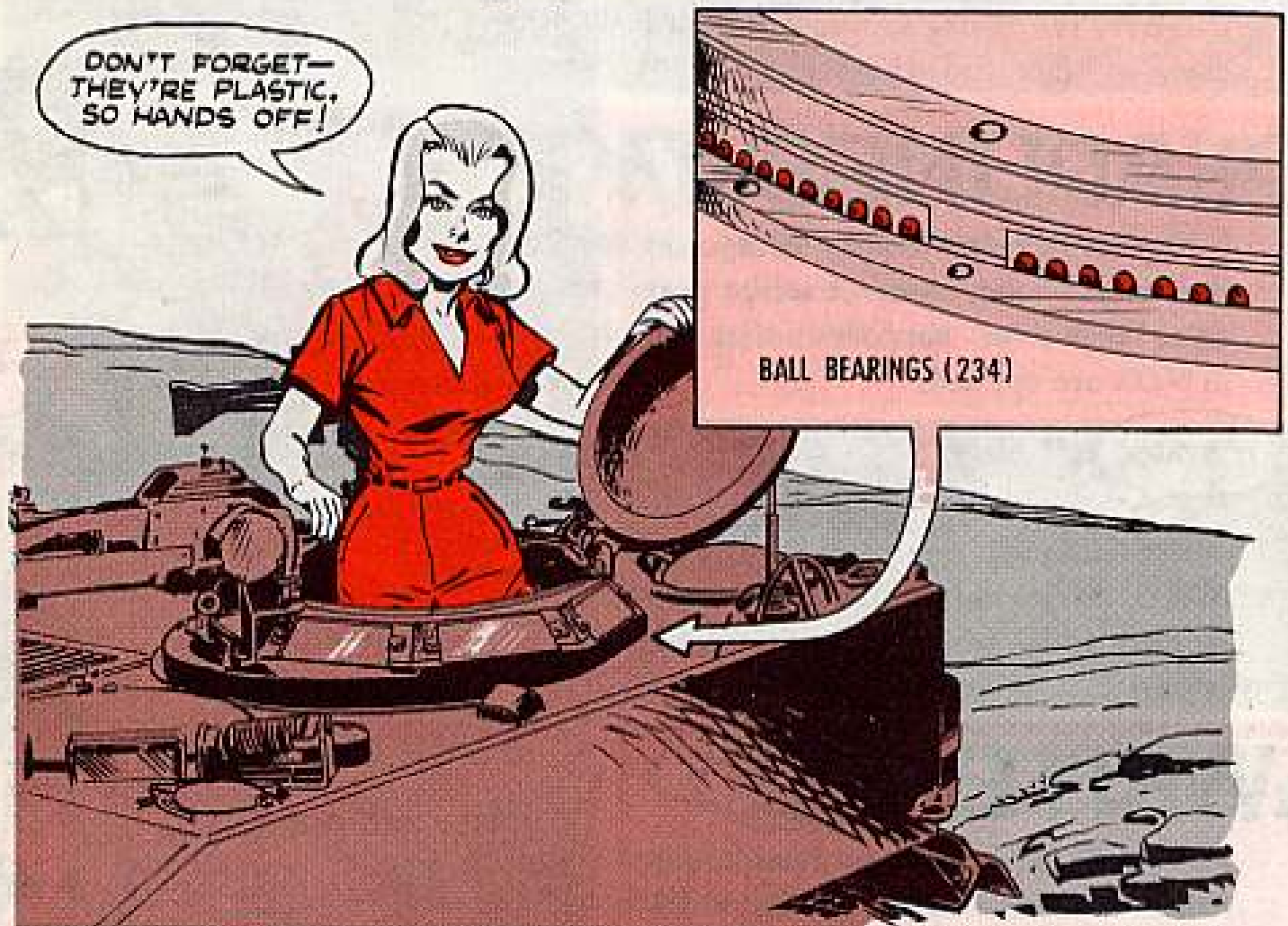


This dope won't tell you which horse will win the next Kentucky Derby. But it will tip you off to the right cleaner for the 234 ball bearings that run around the commander's station cupola upper race ring on your M114A1 Scout.

The plastic balls and surrounding area should be cleaned only with aliphatic naphtha type II, TT-N-95 . . . So now you know!

Your support will have this and they'll do the job.

For the crew and the company mechanic the only rule to remember is . . .



Because they're plastic instead of steel, they need no lubrication. In fact, lube, dry-cleaning solvent and mineral spirits like paint thinner are all bad for the plastic.

The only time you see these balls is when the commander's cupola is pulled but you don't need to see 'em to tell if they're working right. If the balls are on the ball they'll let the cupola spin around quick and silent-like. But if dirt or the wrong kind of fluid gets to 'em the cupola will operate slower and with a lot more noise. Then you send it to your support for cleaning.

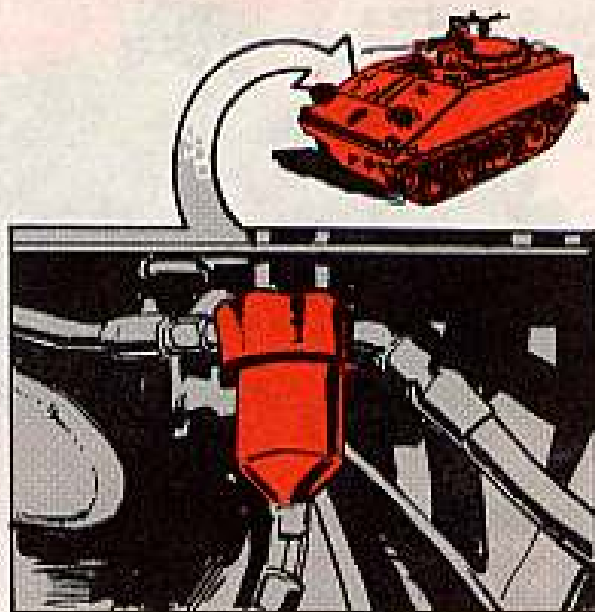
## STEER UNIT OIL FILTER FACTS

The oil filter on your geared steer takes a terrific pounding, particularly when you're warming up a cold engine.

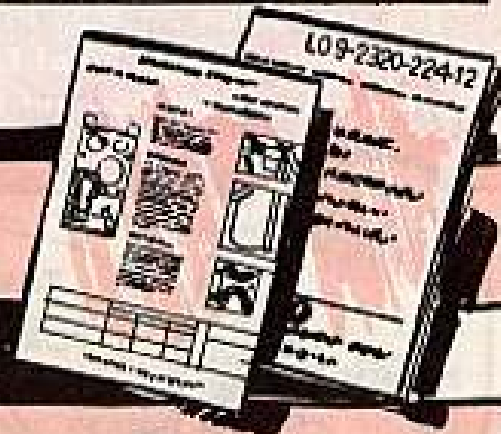
The oil pressure can get so high it warps the filter container, unseats the gaskets and even breaks the container bottom.

If any of this happens you lose oil pressure and, of course, you can't steer so good.

So, you need to keep your filter healthy and this is how you do it . . .



1. Use the right lube for surrounding temperature conditions like it says in the latest edition of LO 9-2320-224-12.



2. Never race the engine during warm up. Instead, you pull the hand throttle out only enough to get a smooth idle.



3. Let the engine warm up three to five minutes before you move out.



4. If your situation permits, drive at moderate speed — steering selector in HI and transmission in D — until the engine warms up.



A reinforced filter is going into supply under FSN 2520-758-2376, but your present filter FSN 2520-806-1117 will work fine if you keep it healthy.

## M114 STARTER SURPRISE

YOUR STARTER WORKED FINE. CAN I KEEP IT?

IT'S OK FOR EMERGENCY USE ONLY.

Dear Editor,

Anybody need an emergency starter for an M114 or M114A1 C & R carrier? Well . . . Surprise! Surprise!

The starter on an M59 PC or M84 mortar carrier will do the job.

It's listed on page 30 of TM 9-2300-203-20P (Oct 58) as FSN 2920-640-7417, Starter, assy (836005), but where you'll prob'ly find one is in a salvage yard.

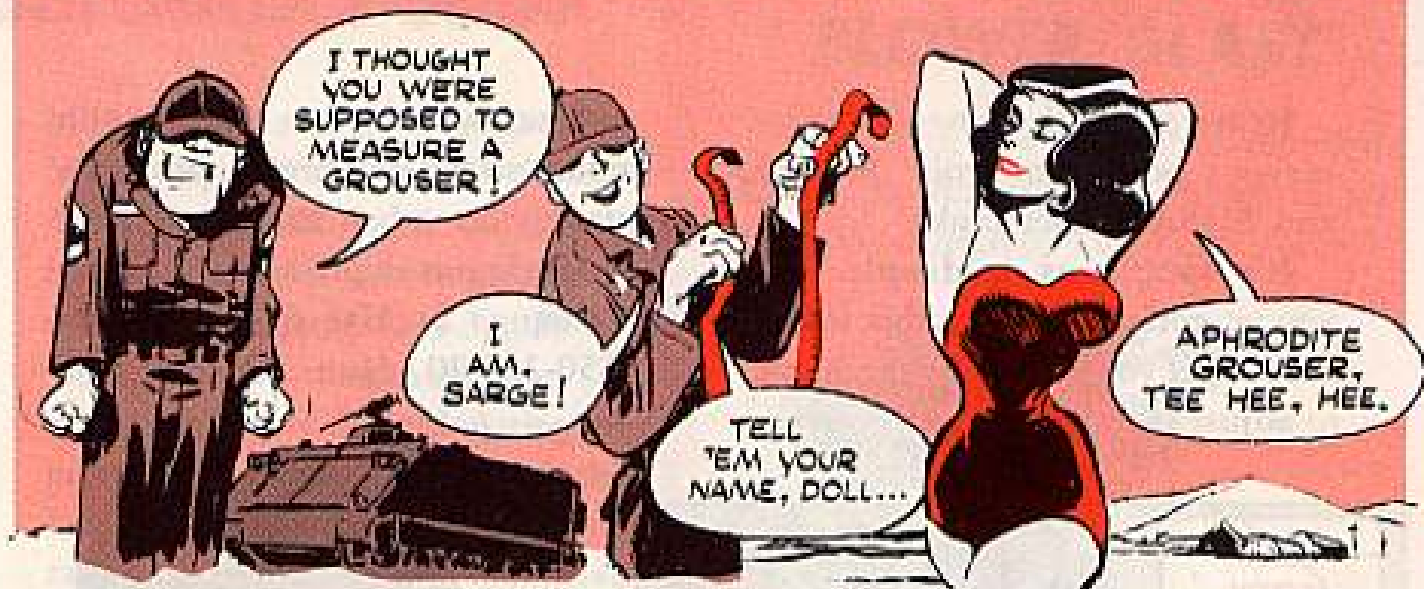
CWO D. W. S.

REMEMBER, IT'S ONLY UNTIL YOU GET THE STARTER DESIGNED FOR YOUR M114 OR M114A1.



(Ed Note — Good idea! Remember, tho, substitute starters are for emergency use only. Just use 'em to keep your M114 going until you can get the starter designed for it — Starter, Electrical (16764-1108259) listed on page 50 of your TM 9-2320-224-25P (Dec 64) under FSN 2920-828-4147).

# GROUSER HEIGHT RIGHT FOR E-A-S-Y ESC

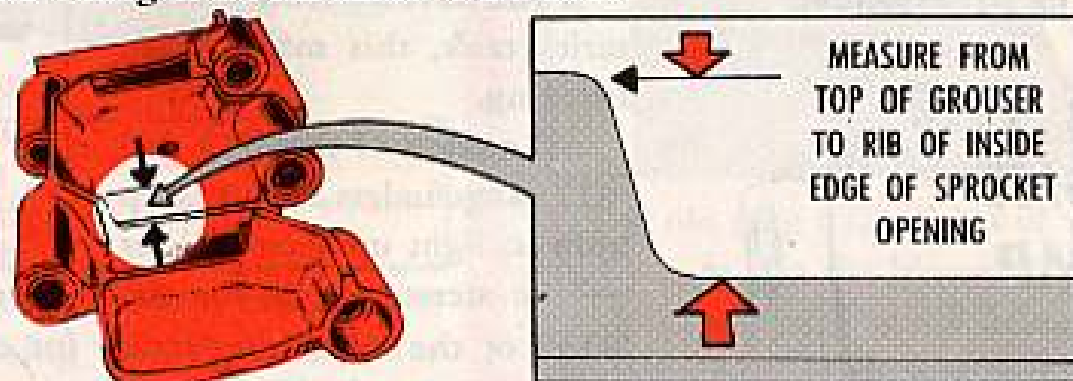


No matter whether you're putting the tape to a beauty contestant or to the grouser on your M113 PC series vehicle, if you measure from the wrong place you get the wrong result every time.

There are now eight different TM 9-2300-224-ESC's covering the M113 family, but Item 2, the section on track, is the same in all of them. Item 2 says to measure the remaining steel grouser height from the top surface of the shoe to the maximum grouser height.

Only question is, where on the top surface of the shoe do you measure from?

Well, the people who wrote the ESC measured from the rib formed by the inside edge of the sprocket opening to the tip of the nearest grouser, and you wouldn't be wrong to do the same. 'Nuff said?



The section on track is the same in all the M113 PC family ESC's but some of the other sections are different so you have to have the right ESC for your particular vehicle.



HERE'S YOUR GUIDE, CLYDE...

TM 9-2300-224

- |                                 |                                    |
|---------------------------------|------------------------------------|
| ESC/1, M113 personnel carrier   | ESC/3, M577 command post carrier   |
| ESC/6, M113A1 personnel carrier | ESC/8, M577A1 command post carrier |
| ESC/2, M106 107-mm mortar       | ESC/4, M132 flame thrower          |
| ESC/7, M106A1 107-mm mortar     | ESC/9, M132A1 flame thrower        |

FOR REAL LOW-DOWN GUNNERS...

## TANK RANGEFINDER

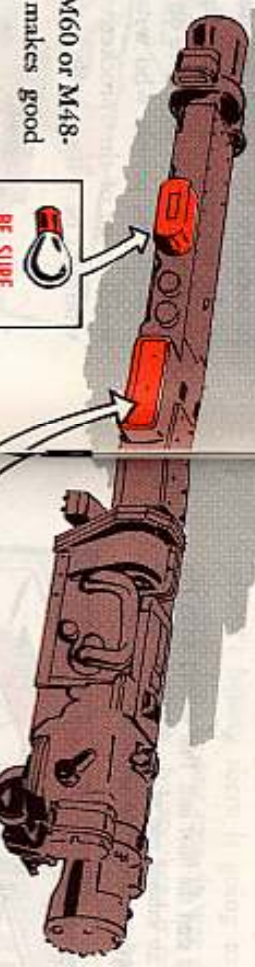
## INSURANCE POLICY

Heard about the rangefinder insurance policy for your M48A3 and M48A2-series tanks?

It's simple as a dimple. All you've gotta do to pay this insurance is get your company mechanic to adjust the maximum depression

stop screw for your 90-mm gun mount so the gun breech clears the rangefinder when the gun is fired at maximum depression.

Change 2 (Mar 65) to TM 9-2350-224-20 (Jun 63) for the



**BE SURE LAMP 1203 IS IN SPARE LAMP BOX, NOT 1683.**

**This lamp will fit OK but it pulls so much current it burns out the range finder variable resistor rheostat.**

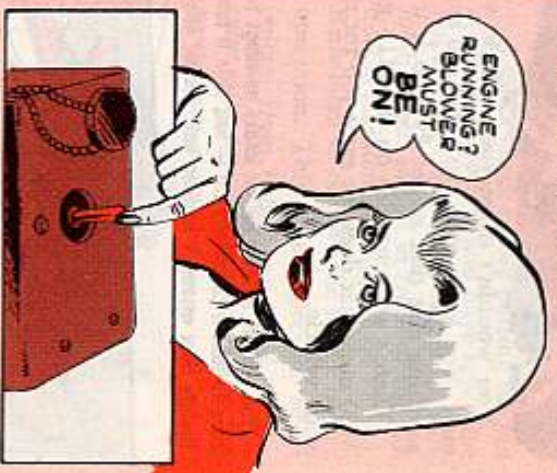
**WHEN YOU'RE BUTTONED UP, TURN THE BLOWER ON IF THE ENGINE IS RUNNING, WHETHER THE TANK IS MOVING OR JUST IDLING IN PLACE.**

## M60/M60A1 TANK BLOWER BLAST

Something new on your turret ventilating blower has been added in the (Feb 65) edition of TM 9-2350-215-10.



**ENGINE RUNNING? BLOWER MUST BE ON!**



The old (Sep 62) edition of this TM told you to run the blower if you had the hatches closed while firing any of the three guns. This still goes, but the new edition adds this little gem to the scene:

**WHEN YOU'RE BUTTONED UP, TURN THE BLOWER ON IF THE ENGINE IS RUNNING, WHETHER THE TANK IS MOVING OR JUST IDLING IN PLACE.**

That carbon monoxide can kill you. So, turret blower ON when you're buttoned up and you either have the engine running or you're firing.

FOR TANK RANGEFINDERS...

## USE THE RIGHT LAMP



If you have an M60 or M48-series tank, this makes good listening. All models of the M13 and M17 rangefinders have a lamp bulb to light up their reticles — the stereo reticle for the M13's or the calibrating reticle for the M17's. This you already know... so on with the show.

The right bulb to light up the reticle has manufacturer's part number 1203 painted on its base and you order it as FSN 6240-019-3102, (193102). You should have one 1203 lamp in the reticle and another in the spare bulb box on the range finder.

The thing is, some Joes have been replacing a burned out 1203 lamp with a 1683 lamp.



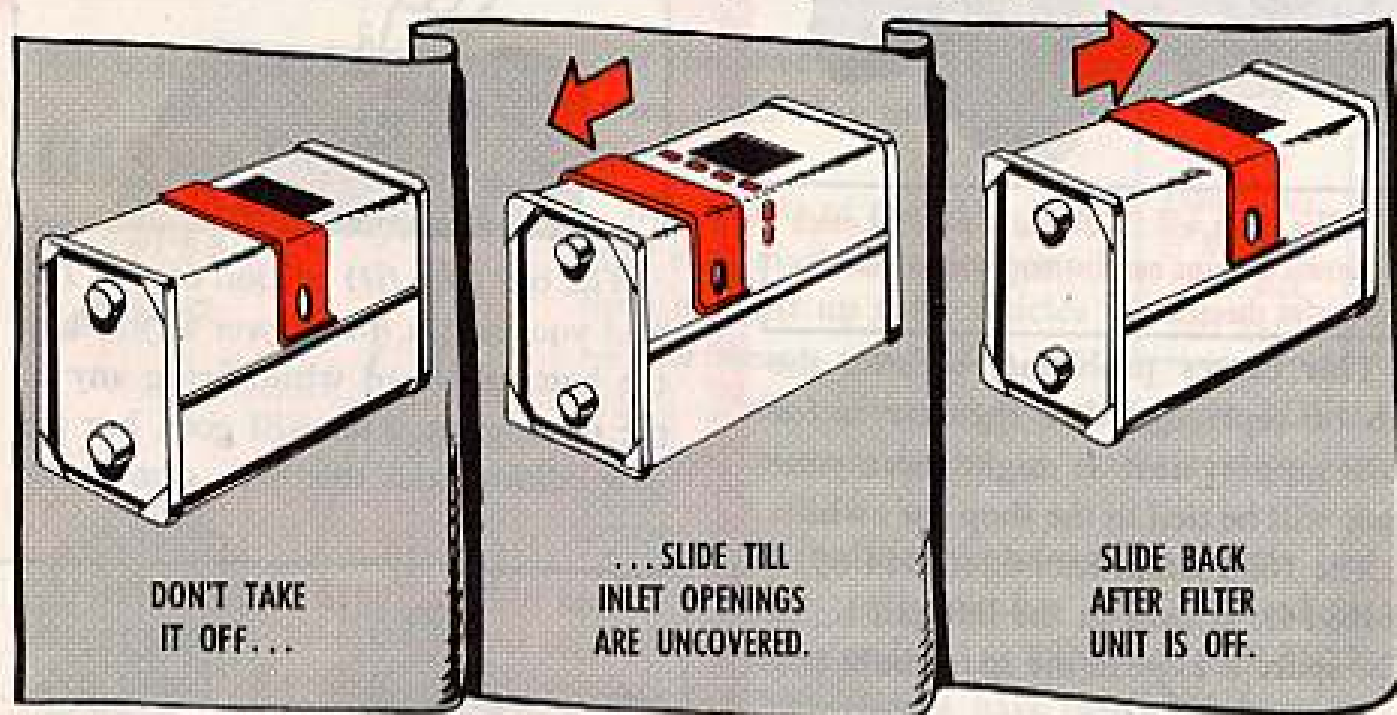
## KEEP THE SPRING CLIP



You wouldn't drive your vehicle very long without having a cap on the gas tank. You know that cap's there to keep out dust, sand, water, and just about anything else that might fly into it if the cap's not on.

There's a spring clip on the M13 gas-particulate filter unit installed in your M60 tank that does the same job for the filter unit that your gas cap does for your vehicle.

You have to uncover the air intake openings before you start the filter unit. That doesn't mean you have to take it completely off — just slide it toward the air exhaust end of the precleaner and particulate filter assembly housing until the air inlet openings are completely uncovered.



Be sure you slide the spring clip back over the air intake openings after you've turned the filter unit off.

If you don't have a clip for your filter unit, better order one. Ask for spring clip, FSN 4240-806-0022.

# FOREIGN OBJECTS FOUL UP FAN



A little carelessness around the engine cooling fan of your M116 cargo carrier can get you a big repair job.

The size of that fan can build up enough suction during high speeds (such as during climbing or rapid acceleration) to suck up any loose objects left inside the engine compartment.

Naturally, any good-sized object that doesn't belong there is going to foul up that fan. In one case, it was a mechanic's glove. In another, it was a broken fan belt. The result was broken

fan blades, which unbalanced the fan, causing engine compartment vibration even at low speeds.

A quick check before putting the fan access door back would have saved the fan in each case. Or a homemade wire mesh screen placed in front of the fan during maintenance might have helped. Remember to remove the screen before operation. This would prevent small objects from being vacuumed off the crew compartment seat when the fan access door is removed.



In case you didn't notice, Change 1 (Feb 63) to TM 9-207 (Sep 59) has a caution thrown in about not adding alcohol to diesel fuel systems.

This caution note is added to para 41a(1) by the change to the TM — which is the manual on operation and maintenance of Army materiel in extreme cold weather.

The reason for the caution is that while alcohol will mix with diesel fuel, it can't combine into an alcohol-water-diesel fuel mixture like it does with gasoline. Besides, the water is already blocked out by the filters in the diesel fuel system. So the alcohol really doesn't help to absorb or trap any of the water in diesel fuel.

Electronic equipment OFF.

Ignition and/or master switch ON. That's the way to beat transient current surges in tracked and wheeled vehicles.

The ignition-master switch combo in tracked stuff, fact is, has added a new victim — the AM-1780 amplifier of the new FM-series radios.

Which takes you way back:

Before you start your engine, turn off electronic equipment (with the AM-1780, this means you turn off the amplifier's power switch in addition to the switch on the radio).

Start your engine. If it's a slave start, keep electronics stuff off until you disconnect the slave cable and turn on the master battery switch.

Turn on your electronics stuff . . . and you've beat it one way.

Now, NEVER turn off the master switch of a running vehicle. Before you stop any engine, turn off all electronic equipment.

Then, turn off the ignition switch . . . or press and hold the engine shutoff switch (in a diesel, it's the engine fuel shutoff switch).

Wait'll the engine stops, and cut off the master switch.

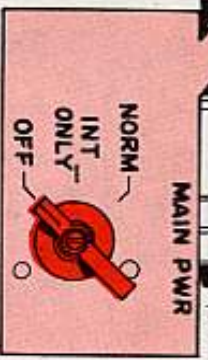
Remember, too, that in all vehicles you turn off radio equipment before removing components from mounts to keep from getting an arc that'll burn the pins.



TRACKS 'N'

TRANSIENTS

REMEMBER!  
ELECTRONIC GEAR OFF  
BEFORE YOU START  
THE ENGINE.



M60 BINDER  
TANK BIND

You in a bind looking for the loose-leaf binder FSN 7510-738-6164 to hold the IO and the operator's manual for your M60 or M60A1 tank?

Don't perspire, Meyer! . . . All you gotta do is order it, one per tank, and your authority is page B-17 of TM 9-2350-215-10 (Feb 65) where it's listed.

You'll need this special binder because the manual will be up-dated by loose-leaf sheets. This handy-dandy binder will be a permanent part of your BI.

M60 GETS  
NEW BINDER



M108/M109 HOWITZERS  
AND M114 SCOUT, 100 . . .

Now if you have an M108 or M109 howitzer, or one of the M114 G&R's, the situation is exactly the same except that it's different.

These vehicles have loose-leaf type manuals so you need a binder — but there is no binder listed in the BI.

So what to do?

So order a standard three-ring binder, FSN 7510-188-6955, 8-1/2 x 11-in., hard cover. You'll find these on the shelves of the country store super-market or you can get 'em through supply.

# WHICH WAY?

Dear Half-Mast,

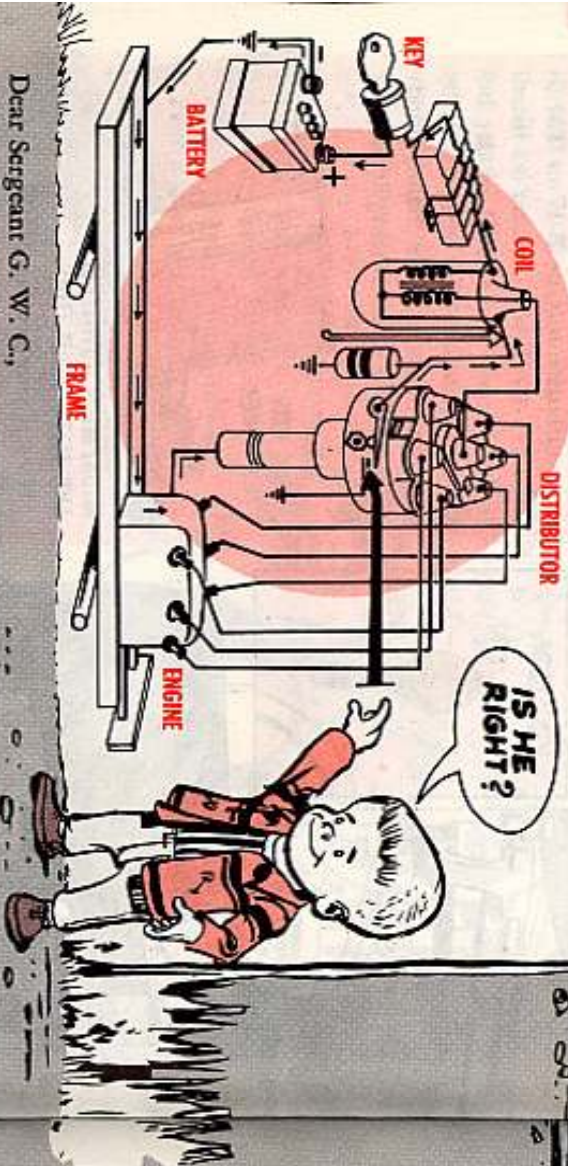
There are many men working around vehicles who do not understand the way current flows through the ignition circuit.

When the subject comes up, many men say, "I don't know" or "from

positive (+) to negative (-) ... because the positive cable's hot."

I believe the current flows through the ignition circuit from negative to positive like this:

Sgt G. W. C.



Dear Sergeant G. W. C.,

The direction of electrical current flow has been, and will be, a troublesome topic. Current to most people is confusing.

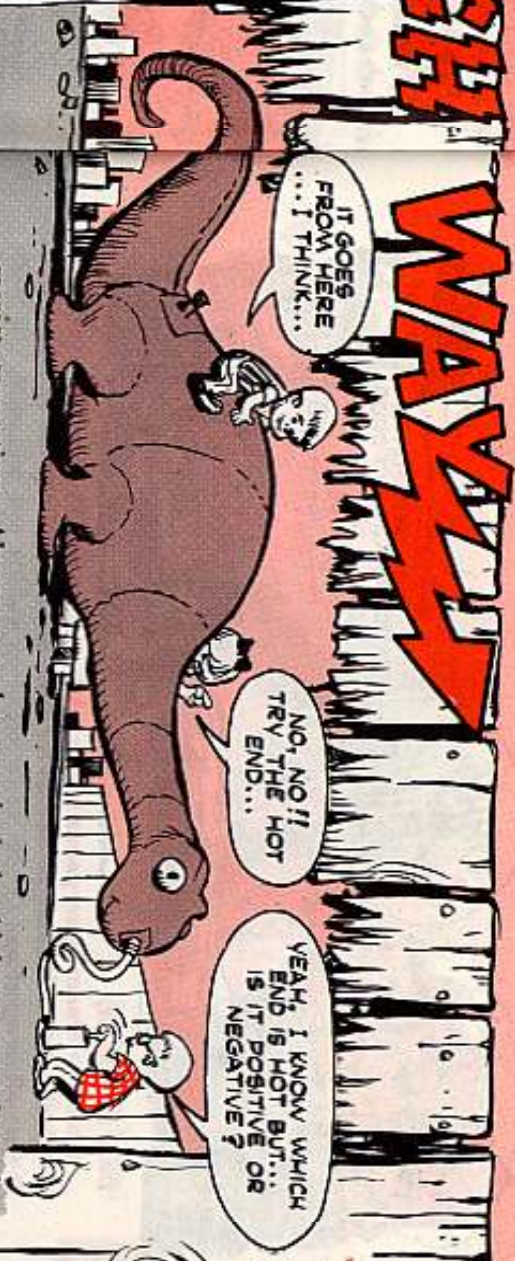
Way back when, Ben Franklin established the theory that current flow is from positive (+) to negative (-). This idea is still believed by most people.

When the vacuum tube was put in use, the positive-to-negative theory didn't work. In electronic circuits (radios, transmitters, television, etc.) the actual flow of electrons (current)

within a tube is from negative to positive.

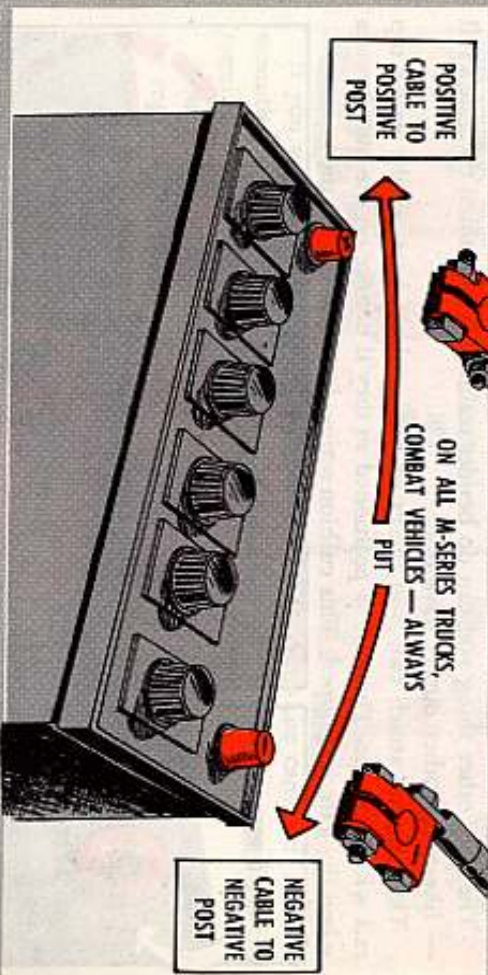
Experts are still finding out new things about current flow. From what we know now you are right when you say that "electron flow" (current) is from negative to positive.

In the M-series wheel and tactical vehicles, the actual flow of current is not too important. But it is important to connect all cables marked positive (+) to their properly marked connections and the negative(-) cables to their



correct connections. Always put the terminal should be connected to the vehicle's positive battery cable terminal on the battery's positive post and the negative (ground) cable on the negative post.

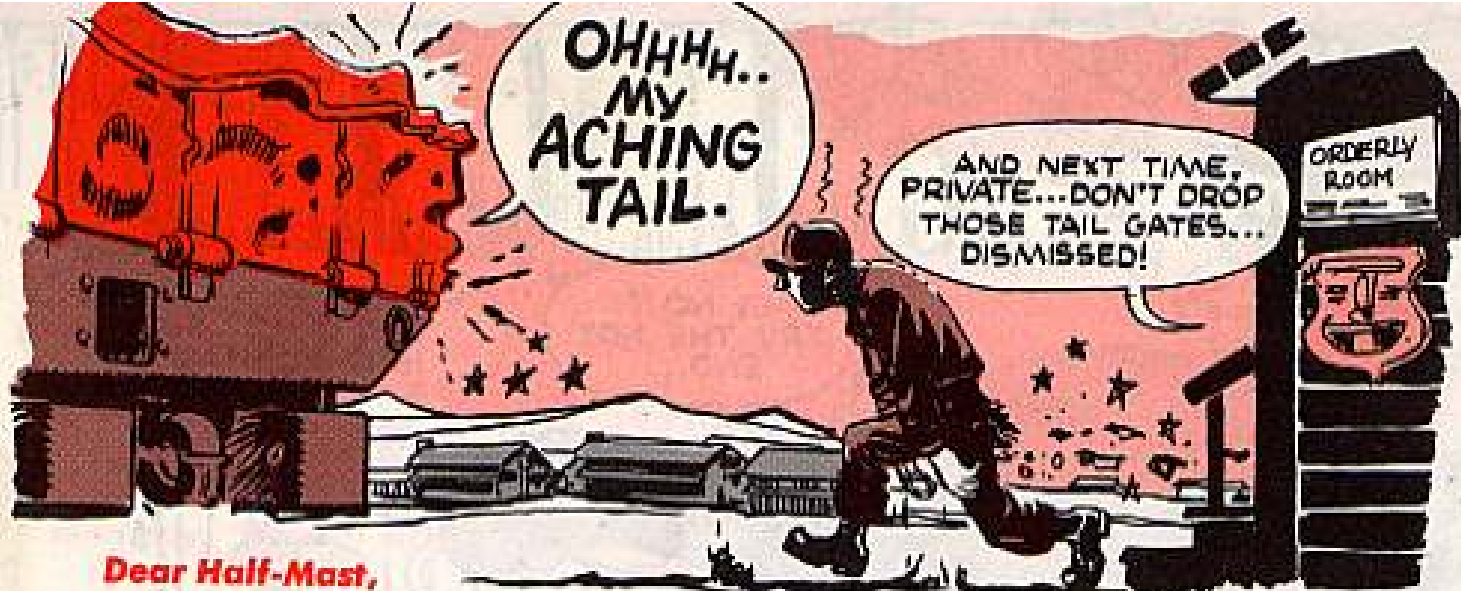
Of course, a positive cable on the battery negative post would work if the vehicle's electrical system was de-



The big danger in applying the "electron flow" theory to vehicle circuits is that somebody who is not aware of the "negative-to-ground" electrical system may get the idea that since current flows from the negative source then the vehicle's positive battery cable

signed to operate with positive ground, but all our M-series tactical and combat vehicles are designed with negative-to-ground.

So always keep the vehicle's ground on the battery's negative post... regardless of current flow.



**Dear Half-Mast,**

***I'm a maintenance sergeant in a truck battalion and I've got a big tail gate headache. When drivers unload or let troops out they drop the tail gate and it gets all banged up.***

***I've done everything short of swinging a meat ax to get 'em to stop. Do you have any suggestions on how I can save my tail gates from those costly repairs?***

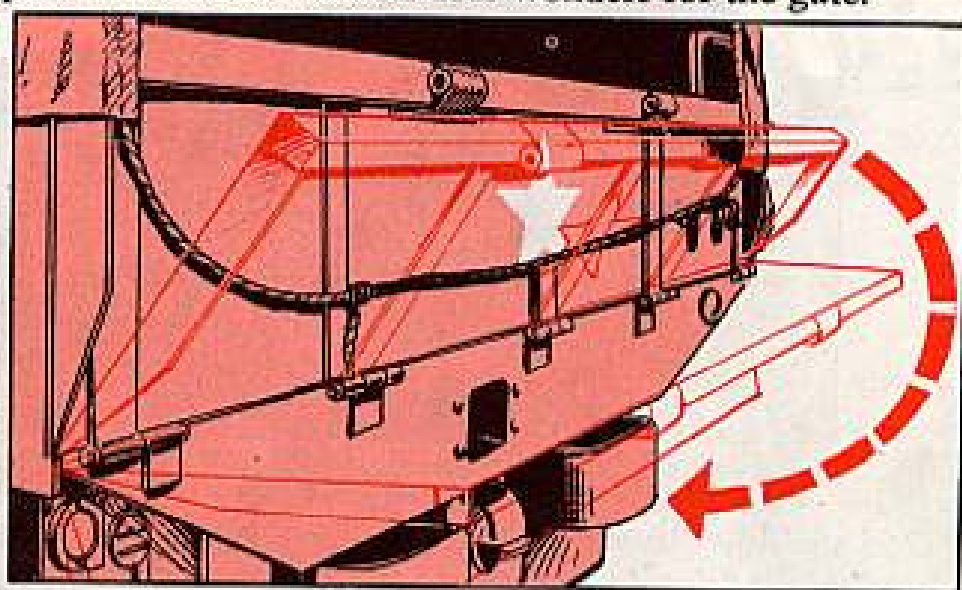
**Sgt L. E. M.**

**Dear Sergeant L. E. M.,**

Your headache is an old one. We had the same problem with wagons when in the hands of rookie mule drivers.

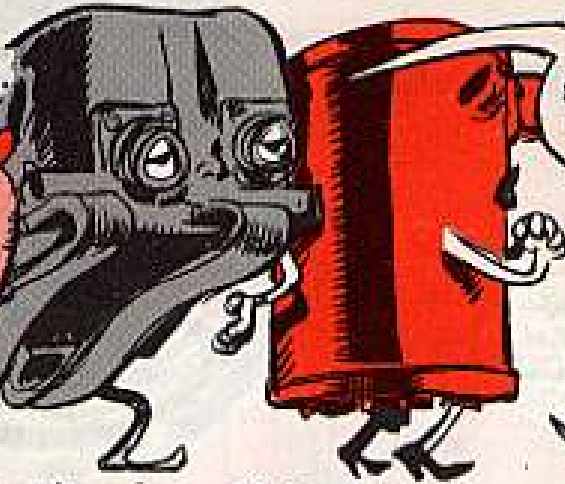
The only other thing you can do besides training is to cushion the gate's fall — like many other outfits have done.

These outfits attach two 3-in pieces of thick rubber hose on the gate's top rail with OD tape. The hose is positioned so they'll bounce on the bumperettes when the gate is dropped. This cushion action does wonders for the gate.



The pieces of hose are usually scrounged from a junk pile or salvage yard. The thicker the hose the better. And the cloth backed waterproof OD tape can be found in any self-service store or supply room. This tape makes the rubber cushions easy to remove for inspections.

GENERATORS 'N' REGULATORS.



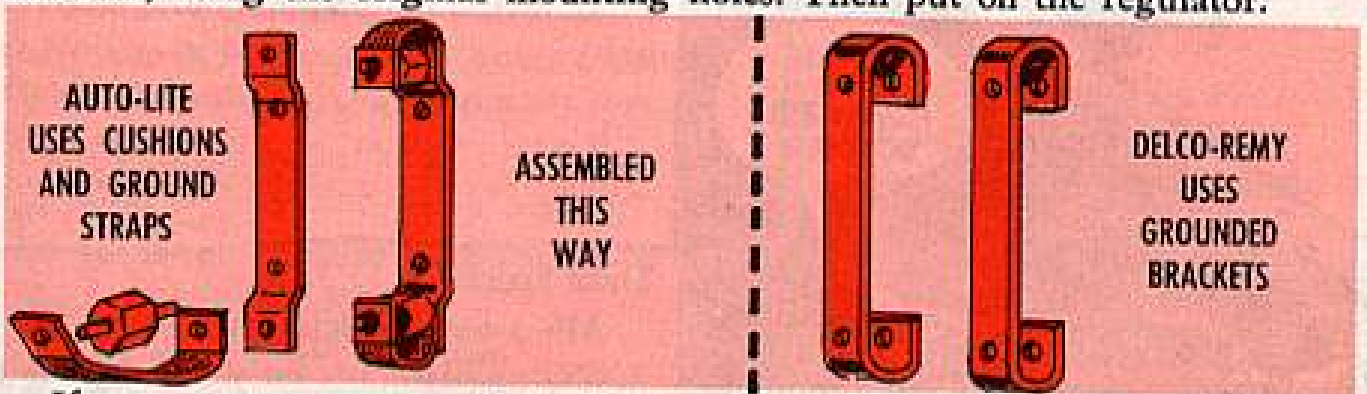
MY RELAYS QUIVER AT THE SIGHT OF YOUR VENUS-LIKE ARMATURE, MY PROUD BEAUTY.

OHhh. YOU MUST SAY THAT TO ALL THE GIRLS, YOU ROGUE...

It's the mating season anytime for a Delco-Remy generator and an Auto-Lite regulator—and the other way around, too—on your M-series wheeled vehicle.

Mating's a matter o' mounting. Electrically, the two regulators are the same, but the Auto-Lite has rubber cushions while the Delco-Remy has its shock absorption built into it.

To replace a Delco-Remy regulator with an Auto-Lite, just install the mounting cushions for the Auto-Lite regulator and the ground straps right on the firewall, using the original mounting holes. Then put on the regulator.



If you want to mount a Delco-Remy where an Auto-Lite came off, take the mounting cushions and ground straps off the bracket. Then put on the Delco regulator with its grounding straps.

Your vehicle's -20 TM shows you how the two cables are hooked up to the regulator.

HERE'S AN INTERESTING QUOTE...



... An inspector's report to a unit should always cite a reference which prescribes the standard violated in each case where a deficiency is charged. The report should also cite references or include recommendations which outline appropriate corrective action.

—DA Pamphlet 750-1  
Para 13b

HEY, REVINGTON—  
THAT SAFE TACH  
READING IS 2800,  
NOT 8200!

IS THIS  
YOUR  
FLYWHEEL,  
SOLDIER?

# RPM

## LIMITS

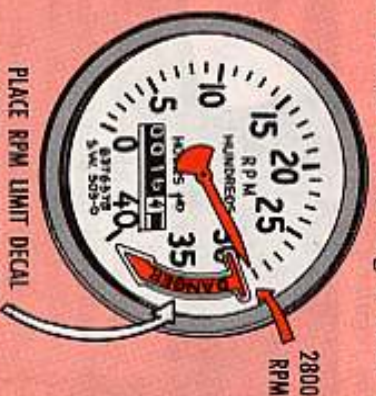
### Dear Half-Mast,

Our outfit has several models of 5-ton trucks. This includes the M51 dump, M52A1 truck-tractor and the M543A2 wrecker.

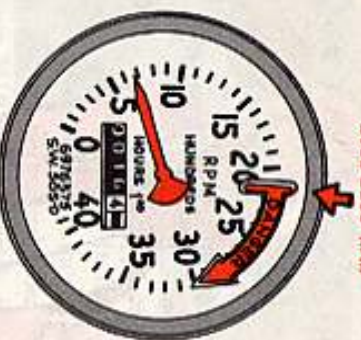
**Question:** Do we apply the warning plate called for by MWO 9-2320-211-20/5 (Nov 62) to all of these 5-ton models and limit their RPM to 2800? If not, what is the maximum RPM setting for the various models?  
SP 5 E. J. S.

Dear Specialist E. J. S.,

All 5-ton models do not get the MWO applied. It's only for the basic gasoline models like the M41, M51, M52, etc., that have the Continental R6602 gasoline engine. Their maximum no-load RPM setting is 2800.



TACHOMETER  
2100-2200 RPM



The "A1" model trucks like the M52A1, M54A1, etc., that have the Mack ENDT-673 diesel engine (burns only diesel fuel) are set for governed no-load speeds of 2100-2200 RPM.

The "A2" multifuel models like the M52A2, M54A2, M543A2, etc., that have the Continental LDS-465-1 engine (uses a variety of fuels like diesel, compression ignition, low grade and regular gasoline), get a no-load setting between 2850-2900 RPM.



But regardless of the model involved, the dope on the MWO's warning plate should be embedded in the brain of all 5-ton truck drivers. That is:

1. Never freewheel (coast) downhill.
2. Never let engine speeds exceed the top RPM setting at any time.
3. Top your brakes from time to time when going downhill to stay within RPM limits.

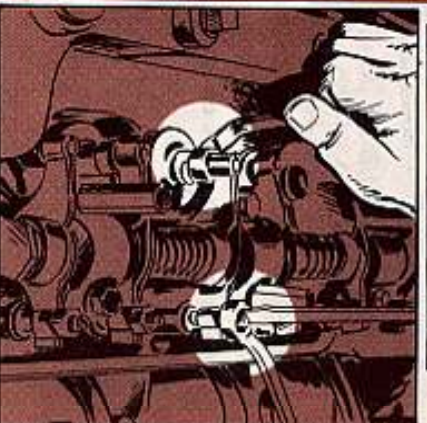
## VALVE CLEARANCE

Some things are worth repeating. This time it's the valve tappet settings for the 5-ton truck G744-series R6602 engine.

The engine name plate and the cylinder head decals on the R6602 say to set the intake valve tappet at 0.020 inch. TM 9-2320-211-20 (Mar 63) says to set 'em all at 0.024 inch. Neither one is right.

Go by Change 1 (13 Jul 64) to TM 9-2320-211-20. This change gives the correct valve settings (Hot) like this:

0.018 INCH FOR THE INTAKE  
0.024 INCH FOR THE EXHAUST.



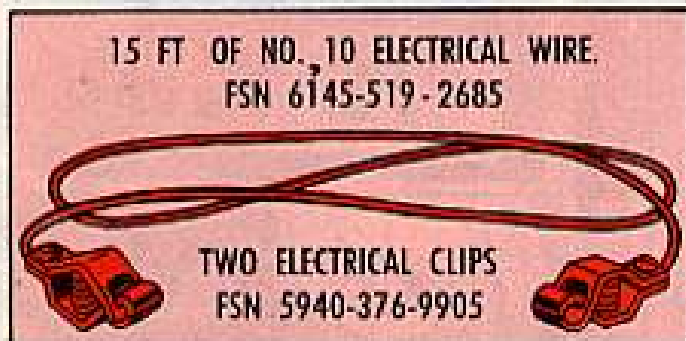
Make a note of this R6602 valve setting change and stick it on page 80 of your -20, right near para 41c(2).

# WIRED FOR SAFETY



A fix for a busted static reel on your M49C tank truck is simple — a hunk of electrical wire and a couple o' clips.

There're no repair parts for the reel in the supply system yet, but TB 9-2300-212-20 (Jan 59) tells you how to make sure you've got a safe ground when dispensing fuel — like so:



Then, if you're taking on gasoline from a storage tank, clip one end of the ground wire to the dispensing nozzle and the other end to your tank truck — at least two feet from the filler neck. Make sure you make this hookup before connecting the dispensing nozzle.

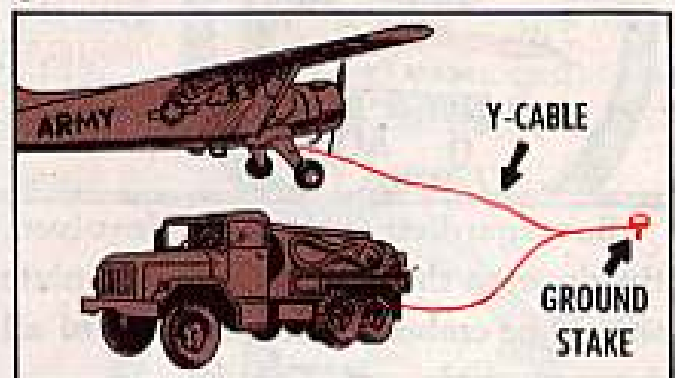
Or, if you're pumping gasoline from your tanker, connect the ground wire between the dispensing nozzle and the vehicle being serviced at a point at least two feet from the gasoline tank

filler cap. Again, make sure you do this before removing the cap and inserting the dispensing nozzle.



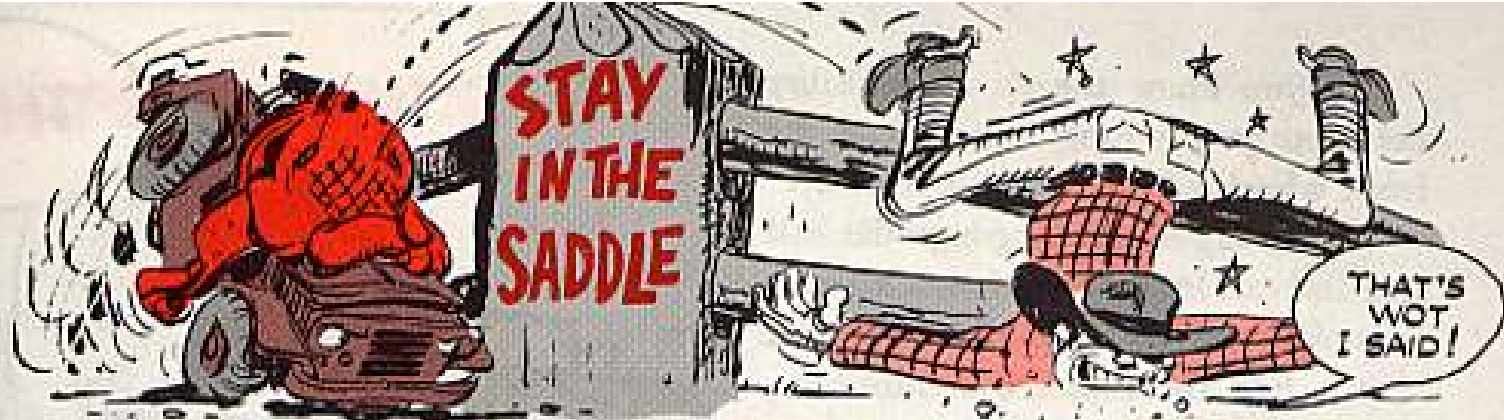
CONNECT GROUND WIRE

Refueling aircraft involves a different grounding setup, including a ground stake.



Proper grounding is critical in handling fuel anytime static electricity is a hazard. So, as TB 9-2300-212-20 cautions, you guys who handle fuel should be familiar with all the precautions given in TM 10-1101 (Sep 55) with Changes 1 (Jan 58), 2 (May 59) and 4 (Apr 61).





Any jockey or cow-poke can tell you that every mount has its own set of riding traits. Some breeds are meant for a smooth track and others for a rough trail. And running them out of their bailiwick calls for careful handling if you don't want to be bucked from the saddle.

Your M151 ¼-ton truck is just another mount with its own traits. It's a trail-rider and is groomed for off-highway traveling; that is, designed for moving over rough terrain on a tactical mission. It was not designed to be operated on a highway like a passenger car.

Now don't get the wrong impression—the M151 is a winner on any track as long as you handle it right.

In other words, all drivers of the M151 should know their mount. A brief but thorough rundown on how the M151 behaves is covered in DA Circular 385-8 (Apr 65), and a color movie—Training Film 55-3412. Reading this DA Circular and seeing the movie should be SOP for every M151 driver. The people at the head shed feel that no one should drive the M151 until they know how to stay in the saddle.



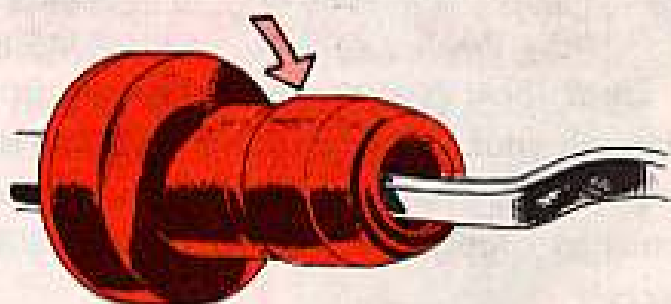
## NEW M151 DIPSTICK



Replace your M151 1/4-ton truck's broken dipstick with the new tougher model. Ask for Rod, Oil, Level Liquid, FSN 6680-688-9965. The dipstick's now in the supply system — your support supply people were told about it in Supply Change 4/44. If they didn't get the word, requisition the dipstick from: Commanding General, US Army Tank-Automotive Center, ATTN: SMOTA-FSC.4, Warren, Michigan 48090.

RUBBER MATES INTO TOP OF TUBE — WATER-TIGHT.

THIS TUBE COMES WITH YOUR DIPSTICK AND MUST BE BRAZED INTO ENGINE BLOCK.

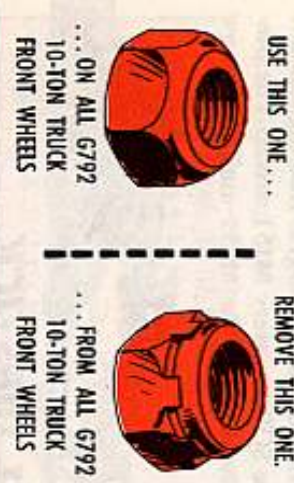


## THE SHAPE COUNTS

Did you know there's a possibility that you have wrong lug nuts on the front wheels of your 10-ton trucks? Wrong lug nuts will gouge the ball seat and can let the wheels work loose. Look your M123's and M125's over. If you find the rounded radius type, you're OK.

But if you have the indented type, you've got to replace 'em with the rounded type. TB 9-2320-206-12/2 (Jun 60) is your authority to do it.

The FSN's for the lug nuts are:  
 FSN 5310-594-8038 (right handed) for the right front.  
 FSN 5310-053-7804 (left handed) for the left front.



## PATIENCE

Still trying to locate the FSN's for the 10-ton M125 cargo truck's cross bows? If so, try these:

- Bow, Vehicular Top ..... 2540-711-0464
- Corner, Bow Assembly ..... 2540-351-0145
- Stake, Vehicle Body ..... 2510-505-6731

Until these new numbers show up in a late-'20P manual, your authorization to get 'em is a justification stating your need and the availability of the items in supply for TM 9-2320-206-20P (Apr 61) users.



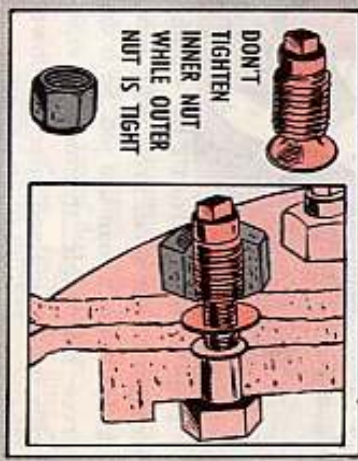
Both the indented and rounded nuts come under the same FSN. When requisitioning either the left or right one, specify that you must have the round radius type.

Speaking of right and left, TM 9-2320-206-20P (April 1961) only lists the left nut, but the mounting nuts are common hardware items and can usually be found in the self-service store. The "right" nut will show up in the next TM revision.

When you mount the lug nuts be certain the wheel holes have no paint, burrs or any dirt in their ball recess. The nut must take a metal-to-metal tight seat and be torqued to 500-550 lbs-ft.

After the nuts are tight there'll be a slight space around 'em. Don't let this lead you to believe the nuts are not seated right. The slight space is normal. The rear dual wheel mounting nuts

must also be torqued to 500-550 lbs-ft. Don't forget to first loosen the outer wheel nut before torquing the inner wheel nut, then follow thru and torque the outer mounting nut. Never try to tighten the inner nut while the outer one is tight.



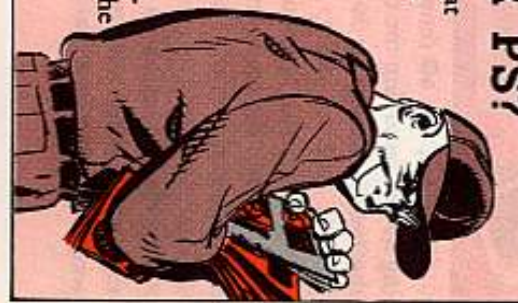
The torque on all wheel mounting nuts should be checked often. Torque wrench FSN 5120-221-7983 that's in the No. 2 supplemental common tool set will do the job.

Anytime you change a wheel away from your motor park, check the torque as soon as you get back.

## WHO GOT YOUR PS?

Are your eyes bleary? Knees weak? Got that headache feeling? Can't sleep at night? Been reading too many manuals and catalogs lately?

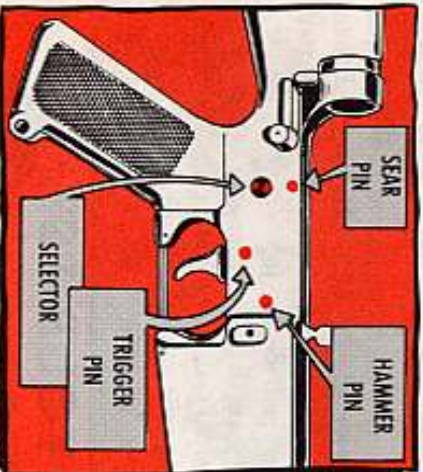
Then you want to wake up and live... with a look-alive shot of PS Magazine every month. Make sure your unit gets enough copies by sending a revised DA Form 12-4 to U. S. Army Publications Center, 2800 Eastern Blvd., Baltimore, Md. 21220... today. Send the 12-4 thru battalion unless you're in a separate company, in that case, it goes direct. On it you order enough copies so all the guys in the unit can read PS.



## WHY RISK



Your M16 or M16E1's the spunky teenager of the small arms field, sure, but it's doing a man-size job. So it deserves reasonable treatment — especially in cleaning and lubing its lower receiver area.



Of course, this all centers on removing or not removing the components of the lower receiver to do the servicing job.

It's a fact. The 5.56-mm rifle doesn't like having its lower receiver taken apart for cleaning — and for good reason.

The lower receiver's made of aluminum to keep the weapon lightweight. But the pins that hold the auto-

matic sear, the hammer assembly, the trigger and the selector lever are all made of steel.

So, if you keep taking the lower receiver apart, these pins'll bye-n-bye make the holes they go through bigger and bigger. First thing you know, the pins fall out and get lost — or the parts they hold won't line up right and your firing's 'way off.

Truth is, you don't have to remove the lower receiver's parts at all to do a good cleaning job, if you do it this-a-way — and do it every day you fire the weapon:

1. Soak your artist brush (FSN 8020-244-0153) or other similar type brush real good with bore cleaner. Then scrub all the parts like there's no tomorrow to get off all the dirt and carbon you can.



2. Tip the lower receiver sideways to drain the excess bore cleaner from the cavity and then wipe it dry.

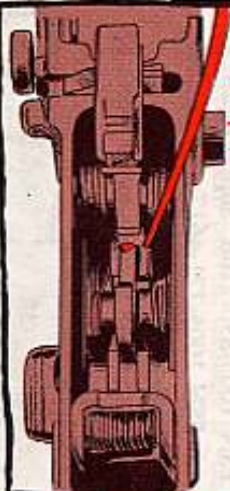


## THE DAMAGE?

3. Wipe a piece of clean cloth or cleaning patch around the brush handle and poke it into the hard-to-get-at places. Do the best job you can to get rid of carbon and gunk that could keep the parts from working right.



4. When you're all through — and the lower receiver's dry — put a light coat of PL Special (FSN 9150-273-2389) or LAW (FSN 9150-292-9689), depending on where you're operating, on all of the insides of the lower receiver and on all of the parts.



A cleaning job like this will get rid of all the carbon and dirt that might keep your weapon from shooting right. Any stuff that's left after you do your level best won't make no never-mind. Of course, if the lower receiver ever gets so fouled up that the rifle won't fire right, then you let support have a whack at it.

Now you can understand why Change 3 to the new TM 9-1005-249-14 (15 May 65) no longer authorizes disassembly of the lower receiver group for

cleaning by riflemen and armorsers. Parts replacement and extra-tough cleaning jobs are for direct or general support only.

But, please don't miss out on that lubing job. All components of the lower receiver — as well as the bolt carrier group — must wear a light coat of oil at all times. No "buts" about it. Your rifle can't perform without it.

That's why "white-glove inspections" are too risky for this baby. There's always the danger that some guy might be tempted to give his weapon a shower or tub bath before inspection to get rid of dirt and lube.



Anybody who bathes his rifle is doing it dirt two ways: First, he's robbing it of the lube protection it needs. Second, he's liable to let water seep into the lower receiver extension. This could cause rusting of the extension and the action spring — or it might result in a short recoil of the bolt carrier group, thereby preventing the bolt assembly from retracting far enough to strip a cartridge from the magazine.

When you consider that all this has a direct bearing on how well your M16 or M16E1's going to fire and protect your hide in a showdown, these angles make real good sense, don't they?

# I'M TOUGHER'N YOU THINK!

Dear Half-Mast,

Just how tough is this M14 rifle anyway? Meaning — if the handguard or stock got burned out or charred from repeated firing of blank or ball ammo and the barrel got badly discolored, would the entire weapon have to be scrapped? We have an argument going on this.

SFC G. B. J.

Dear Sergeant G. B. J.,

No, the weapon wouldn't have to be scrapped. Your M14's a lot tougher than you think. In a case of a burn-out from continuous firing like this — even if the barrel and other metal parts look bad — it can be put back in fighting shape. Replacement of the wooden or fiberglass parts and a good clean-up job are all it takes.

F'rinstance, you can get rid of the discoloration by cleaning the metal with bore cleaner and wiping it off with an oily rag. Then your armorer can replace the handguard with FSN 1005-856-2108. Support can replace the stock with FSN 1005-771-4617 and the butt plate with FSN 1005-690-4067.

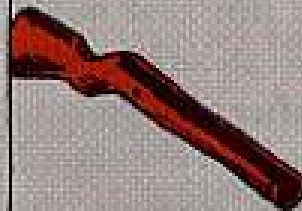
The point is, though, that the barrel's metal won't be weakened by the burn-out.

YOUR ARMORER  
CAN REPLACE  
HANDGUARD  
WITH ...



... FSN 1005-856-2108

SUPPORT CAN  
REPLACE THE  
STOCK WITH ...



... FSN 1005-771-4617

AND SUPPORT  
CAN REPLACE  
BUTT PLATE WITH ...



... FSN 1005-690-4067

Of course, if the weapon should happen to get caught in a fire or such-like, and got exposed to excessive heat for a considerable spell, the tensile strength of the metal would be weakened — and the weapon'd better be scrapped for everybody's sake.

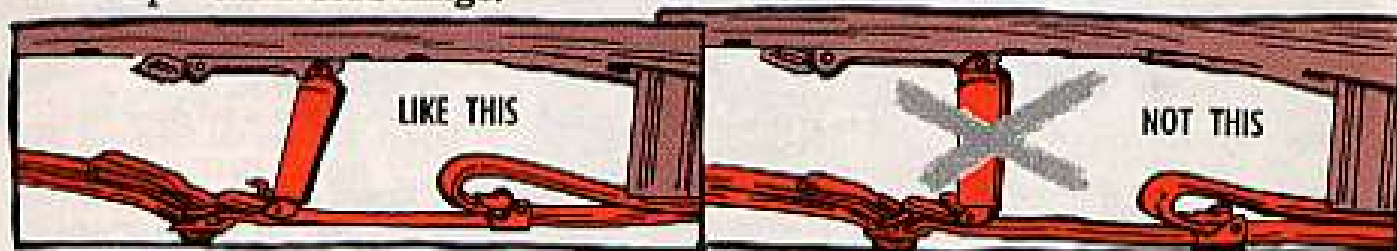
# GIVE HER SOME TENSION



Position's everything in life to the handgrip assembly on your M14E2 rifle . . . when she's attached to the sling and bipod, anyway.

She wants to be slightly forward and held firm in the unlocked position to the front part of the sling by the sling's second hook.

She does not want to be straight down and locked like this — or you'll wind up with a dead hinge.



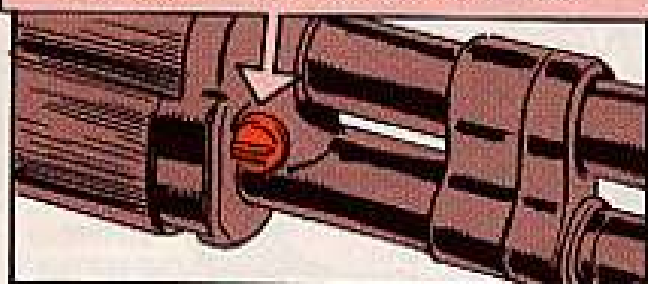
Y'see, the tension of the sling from the bottom of the handgrip to the front swivel helps support the handgrip and keeps you from yanking her back hard enough to bust the hinge when you're firing. This tension also adds support to the bipod legs . . . gives you better muzzle control during automatic firing . . . and could help prevent damage if you make a bad landing while going into the prone firing position.

So, get your baby in her preferred position every time. Put that second hook through the rung at the bottom of the handgrip. Then push the handgrip forward a couple inches, and finally tighten the sling till you get the tension you want.

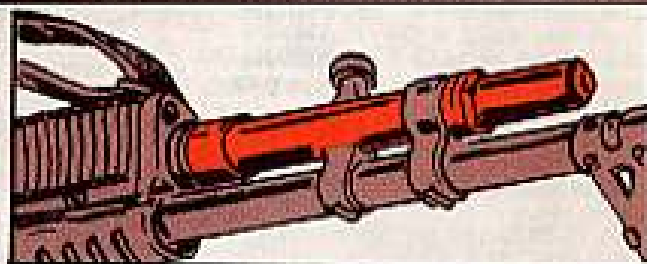
## CARBON SHUTOUT

Here're a couple quick-pitches that'll help keep carbon from getting to first base whenever you're cleaning your M14 rifle and M60 machine gun:

On the M14 — turn the spindle valve off.



On the M60 — keep the gas cylinder up.



Bear down on these, and you'll shut bore cleaner and oil out of the gas cylinders . . . and lessen your chance of a no-fire. Bore cleaner and oil, y'know, lead off for carbon buildup during firing.

A selected list of recent publications of interest to Organizational Maintenance Personnel. This is a list compiled from recent Adjutant General's Distribution Center bulletins. For complete details see DA Pam 210-4 with latest changes.

#### TECHNICAL MANUALS

TM 1-11-19A-508, C3, Jun, O-1A.  
 TM 1-260, May, Rotary Wing Flight.  
 TM 5-2805-206-14, Jun, Eng, Gas; MIL STD (1A08-1) 1 1/2 Hp; (1A08-2) 1 1/2 Hp; (2A016-1) 3 Hp; (1A016-3) 3 Hp.  
 TM 5-3895-212-20P, Jun, Dryer, Aggr; DED; 80-TPH Barber Greene B37.  
 TM 5-4310-222-20P, Jun, Comp Rotary, Air, Gas Eng 125 CFM, 100 PSI, Joy RP125QC 4DMS-3.  
 TM 5-4310-246-15, Jun, Comp, Air Recip, GED, 15 CFM, 3,500 PSI, Joy 413HGPJMS1.  
 TM 5-4320-217-20P, May, Pump, Cent; GED, Brielle Marine and Industrial Equip Co., PP 113.  
 TM 5-4320-220-25P, Jun, Pump, Cent, GED, 2-in, 166 GPM, Barnes 18-MQ, Ser, Nos. 1-207.  
 TM 5-4930-201-25P, Jun, Lub and Serv Unit Pwr Operated, 12 CFM GED, CEMCO Industries ENG 2 w/Engine Onan CCKM-MF/471C.  
 TM 5-6230-201-25P, Jun, Searchlight, 18-in 2500W; Tank Mig, Crouse-Hinds 44676-C.  
 TM 9-1400-461-25C, May, G.M.L. M22.  
 TM 9-2300-224-20/3/2, Jun, Part Two for Carrier, Command Post, M577 (Gas), M577A1 (Diesel).  
 TM 9-2330-207-24P, Ct, Jun, Semi-trailer, 12-Ton.  
 TM 9-2330-273-14, Jun, Dolly Set, Trans Shelter, XM689, XM690, XM691.  
 TM 9-4935-377-12P/1, May, Pershing, Test Equip.  
 TM 9-4935-378-12P/2, May, Pershing, Test Equip.  
 TM 9-4935-380-12P/2, May, Pershing, Test Equip.  
 TM 9-4935-500-12P/1, Apr, Hawk, Test Equip.  
 TM 9-4940-253-15P/1, Apr, Nike-Herc (Imp) Test Equip.  
 TM 9-8140-375-12P/1, Apr, Pershing, Ground Handlg, Spl & Svc Equip.  
 TM 10-500-69, May, Rigging 210 CFM, Davey, Trailer-Mtd Air Comp.  
 TM 10-1670-202-20P, May, Parachute, Cargo, 28 FT DIA, Nylon Canopy.  
 TM 10-1670-204-20P, May, Parachute, Cargo Extraction, 22 FT DIA, Nylon Canopy.  
 TM 10-3930-216-25P, Jun, Truck, Lift, Fork, Gas, 4,000 lb Cap, Minneapolis-Moline MY 40 RS, MY 40 NRS, Army MHE 170, Minneapolis-Moline MY 40 MB NRS, Army MHE 170A.  
 TM 10-3930-254-15, Apr, Trk, Platform, Elec, 12,000-Lb Cap, American Pulley Company PCH-12-E, Army MHE-187.  
 TM 10-3930-255-20, Apr, Trk, Lift, Fork, Elec, 2000-Lb Cap, Army MHE-197, Baker FTD-020-EE.  
 TM 10-3930-255-20P, Apr, Trk, Lift, Fork, Elec, 2000-Lb Cap, Army MHE-197, Baker FTD-020-EE.  
 TM 10-3930-256-20, May, Trk, Lift,

Fork, Elec, Solid Rubber Tires, 6000-Lb Cap, Army Mdl MHE-196, Baker Mdl FTD-060-EE.  
 TM 10-3930-257-20, Apr, Trk, Lift, Fork, Elec, 4000-Lb Cap, Army MHE-196, Baker FTD-040-EE.  
 TM 10-3930-257-20P, Apr, Trk, Lift, Fork, Elec, 4000-Lb Cap, Army MHE-196, Baker FTD-040-EE.  
 TM 10-3930-408-25P, May, Tractor, Wheel, Wheel, 4000-Lb, Drawbar Pull, Army MHE-180, Clark CTA-40-1615160-RS.  
 TM 10-3930-409-20P, Apr, Tractor, Wheel, Wheel, 4000-Lb Drawbar Pull, Army MHE-189, United Tractor G40.  
 TM 10-3950-203-10, Jun, Crane, Trk, Wheel Slewing Boom, Gas, 10,000-Lb Cap, Hughes-Kaanon VSH-10, Army MHE-194.  
 TM 10-3950-204-10, Apr, Crane, Trk, Wheel, 10,000-Lb Cap, Pettibone-Mulliken 10P, Army MHE-195.  
 TM 10-4930-203-13, May, Fuel System, Supply Point, 60,000 Gal Cap.  
 TM 10-4930-203-23P, Apr, Fuel Sys, Sup Point, Six Servicing Nozzles, 60,000-Gal Cap.  
 TM 10-8110-201-13, Jan, Drum, Fabric, Collapsible, Liquid Fuel, 500 Gal Cap (Nonvented).  
 TM 11-372-1, May, Telephone Cable Splicing Fundamentals.  
 TM 11-4940-205-23, Jan, Nike-Herc, Nike-Herc (Imp), Target Mat, Mat Monitor Radar.  
 TM 11-5805-334-25P, May, Panels, Circuit Terminations 58-1525/FT, 58-1526/FT.  
 TM 11-5821-221-12P, Apr, Radio Sets AN/GRC-119 and 119A.  
 TM 11-5840-264-12 Mar, Nike-Ajax, Nike-Herc Radar.  
 TM 11-6615-204-13, May, AN/A5W-12 (V) Auto Flight Control Sys.  
 TM 11-6625-433-20P, Apr, Watmeter AN/URM-98.  
 TM 11-6625-614-12, Jan, AN/A5M-121, Amp Test Set.  
 TM 38-750, C2, May, Army Equipment Record Procedures.  
 TM 55-1510-201-20, C8, Mar, U-8.  
 TM 55-1510-201-20P, C1, Apr, U-8.  
 TM 55-1510-202-20P, C1, Apr, O-1A.  
 TM 55-1510-205-20PMD, Jun, U-1.  
 TM 55-1510-205-20PML, Jan, U-1.  
 TM 55-1510-205-20PMP, Jun, U-1.  
 TM 55-1510-206-20, C8, May, CV-2.  
 TM 55-1520-202-20, C6, Jun, CH-34.  
 TM 55-1520-202-20P, Mar, CH-34.  
 TM 55-1520-203-20P, C2, Jan, CH-37.  
 TM 55-1520-203-20PMD, Jun, CH-37.  
 TM 55-1520-203-20PML, Jun, CH-37.  
 TM 55-1520-203-20PMP, Jun, CH-37.  
 TM 55-1520-206-20P, Mar, OH-23.  
 TM 55-1520-206-20P, C1, Jun, OH-23.  
 TM 55-1520-209-20, May, CH-47.  
 TM 55-1520-209-20P, Apr, CH-47.  
 TM 55-1520-209-20PMD, Jun, CH-47.  
 TM 55-1520-209-20PML, Jun, CH-47.  
 TM 55-1520-210-10, C3, Apr, UH-1.  
 TM 55-1520-211-10, C4, Mar, UH-1.  
 TM 55-1520-211-10, C5, Apr, UH-1.  
 TM 55-1520-211-20, Apr, UH-1.  
 TM 55-1520-211-20P, C1, Apr, UH-1.  
 TM 55-1530-200-24P, Apr, USD-1.  
 TM 55-2350-213-10-2, Apr, Transport Guidance, Tank, Combat, Full-Trkd, 105-MM Gun M60A1.

#### LUBRICATION ORDERS

LO 3-1040-241-12, Jun, Compressor, Recip, 50 CFM, 3,000 PSI M6-1R Ingenall-Rand 6R518.  
 LO 5-2805-204-14, Jun, Eng, Gas, MIL STD (2A042-1 and 2A042-11) 110 Hp and (4A084-1 and 4A042-11) 20 Hp.  
 LO 5-2805-213-14, Apr, Eng, Gas Mill Std A042 14 HP.  
 LO 5-3431-216-15, Mar, Welding Mach, Arc; GED, 3 KW, Harnischfeger WNG 300B, W/Cont Eng FS244.  
 LO 5-3895-260-15, Mar, Feeder, Aggregate, 80-225 TPH, Barber-Greene 815.  
 LO 5-3895-265-15, Mar, Hammer, Pile Drvr, 5P, DED, Link-Belt Speeder 180M.  
 LO 5-4310-247-15, Apr, Compressor, Rotary, DED, Air, 250 CFM, 100 PSI Eng, Continental JB403, Joy RPY259DC 2DMS1.  
 LO 9-1400-375-20, May, Pershing, Ground Handling, Spl & Svc Equip.  
 LO 9-2320-223-12, May, Carrier, Cargo, M116.  
 LO 10-3930-257-20, Apr, Trk, Lift, Fork, Elec, 4,000-Lb Cap, Baker FTD-004-EE, Army MHE 196.

#### MODIFICATION WORK ORDERS

MWO 9-1005-243-30/3, May, M6 Subsystem.  
 MWO 9-2300-216-20/4, Jun, 175-MM M107, 8-in M110 SP How — Mod of Biry Camp Door.  
 MWO 9-2320-218-20/13, May, Truck, M151; Install M14 Rifle Mig Kit.  
 MWO 9-2350-215-20/26, May, Tanks; 105-MM Gun, M60; Install 2-rd Tray Assy For 105-MM Ammo.  
 MWO 10-8340-212-20/1, Jun, Nike-Herc, Tentage.  
 MWO 55-1510-202-34/7, C1, May, O-1A.  
 MWO 55-1510-202-30/1, C2, Jun, O-1A.  
 MWO 55-1510-203-34/3, May, U-6.  
 MWO 55-1510-204-34/25, C2, May, OY-1.  
 MWO 55-1510-204-34/69, C1, May, OY-1.  
 MWO 55-1510-205-34/1, C1, May, U-1.  
 MWO 55-1510-206-34/24, May, CV-2.  
 MWO 55-1510-206-34/62, C1, Jun, CV-2.  
 MWO 55-1520-202-34/35, Jan, CH34.  
 MWO 55-1520-206-34/16, Jun, OH-23.  
 MWO 55-1520-209-20/16, Jul, CH-47.  
 MWO 55-1520-209-20/18, C1, May, CH-47.  
 MWO 55-1520-209-34/47, May, CH-47.  
 MWO 55-1520-209-34/71, May, CH-47.  
 MWO 55-1520-210-20/10, May, UH-1.  
 MWO 55-1520-210-30/3, Jun, UH-1.  
 MWO 55-1520-210-34/2, Apr, UH-1.  
 MWO 55-1520-211-20/23, C1, May, UH-1.  
 MWO 55-1520-211-20/28, May, UH-1.

# JOE'S DOPE

# KINDNESS THAT KILLS

Operation "Jungle Rot" is in full swing . . . and the problems of combat readiness weigh heavily on one sergeant.

GROAN...  
50% OF  
MY STUFF  
DEADLINED.

HEY, ABE!  
OL' SARGE IS  
DOWN IN THE  
MOUTH... HOW  
ABOUT PERKIN'  
HIM UP A BIT?

DEFENDING  
FORCE —  
OPERATION  
JUNGLE ROT



RAHHT!!  
POPE FELLER...  
AHL' SEE WHUT  
AHL' KIN DO! AHL'  
TRAH MAH BEST  
T'SNAP HIM OUT  
OF IT. LEAVE IT  
TUH OL' ABRAHAM  
SHIPPE!

OL' ABE'S  
GONNA  
GET FRIED  
FOR SLIDE,  
OL' SARGE  
GOT PROBLEMS.



HOWWDY  
SARRG-IENT!

OH NO...  
NOT ABRAHAM  
SHIPPE... HIM,  
I NEED LIKE  
A HOLE...



SARGE...  
AH HEAH YEW  
IN DYER NEED  
OF A HELPIN'  
HAY-UND.

NO,  
NO, NO,  
NO, THE  
ANSWER  
IS NO, NO!!  
PLEASE —  
DON'T —  
HELP  
ME!!



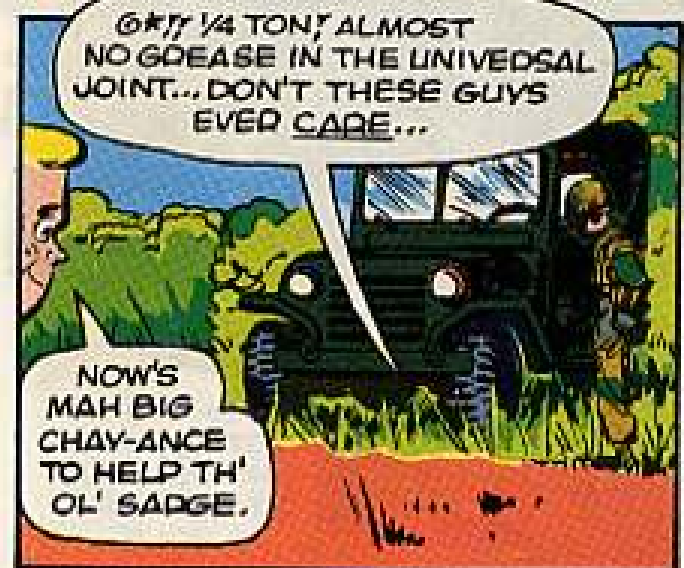
DON'T YOU HAVE A PATROL ON TAP? GO AND SHAPE UP FOR IT, THAT'S AN ORDER!

PORE SOUL ...SOMETIMES FOLKS NEED HAYULP AND DON'T KNOW IT!



AHM GONNA HAYULP HIM BYGOLLY!!

3 GLOOME @\*!! VEHICLES, @\*!! GEAD! ONCE THEM GUYS ADE IN TH' FIELD, PM GOES T'ROT.



@\*!! 1/4 TON! ALMOST NO GDEASE IN THE UNIVEDSAL JOINT... DON'T THESE GUYS EVED CARE...

NOW'S MAH BIG CHAY-ANCE TO HELP TH' OL' SARGE.



THAY-DE! THAYAT DUZ IT... 'N'AN EXTREE SHOT O'GDEASE TUH MAKE UP FO' THE LACK.

SURROUNDED BY ASSASSINS.



HEY... SARGE... DON'T GO WODRYIN' SO... WHA, A'LL BET, DAHT NOW THINGS IS SORTA BETTERIN' THEMSELVES FOR VAT



SHIPPE! I THOUGHT I TOLD YOU TO...

OKAY... SARGE AHM ON TH' WAY.



TOO BAYLID... SORTA WANTED HIM TO KNOW THAT HE HAYLIZ AT LEAST ONE ON-TH-BALL BOY ADOUN!

@\*!!





AGHH... LOOKIT! THIS NUT IS SUPPOSED TO HAVE 45 POUNDS OF TORQUE... IT'S JUST FINGER-TIGHT @\*!!

MAH GUDNESS! IF'N AH DON'T HAYULP HIM AGIN' HE'LL BUST A GUSSET... FO' SHODE.



LESSEE NOW... AH THANK HE SAYHD FO-TEE FAHVE POUNDS... WAHL, JUS' TO BE SHODE... AH'LL MAKE IT SEVENTY FAHVE... ?GDLNT: THET SHOULD DO IT DANDY, LIKE.



HMMM... IF'N AH DAHTLY REC-COLLECT, OL' SADDG-IENT SED SOMETHIN' BOUT THET DUCE 'N'A HAYLIF BEIN' LOW ON OIL. AH'LL JUS' FIX THET TOO. MIGHT AS WELL ADD AN EXTDEE QUART FO' A GOOD MAY-ZUDE.



AH MAHGT AS WELL HEAD BACK TO TH' PATROL A' FORD TH' OL' SADDG-IENT TANS MAH HIDE ~~TOO~~ OHHH THET OL' MOUNT-AYN DEW?!



SHIPPE, ARE YOU SHAPED UP FOR THAT "RECON" PATROL?

RAHT AS RAIN. SADDG-IENT! JUS' A' DARIN TO GO.



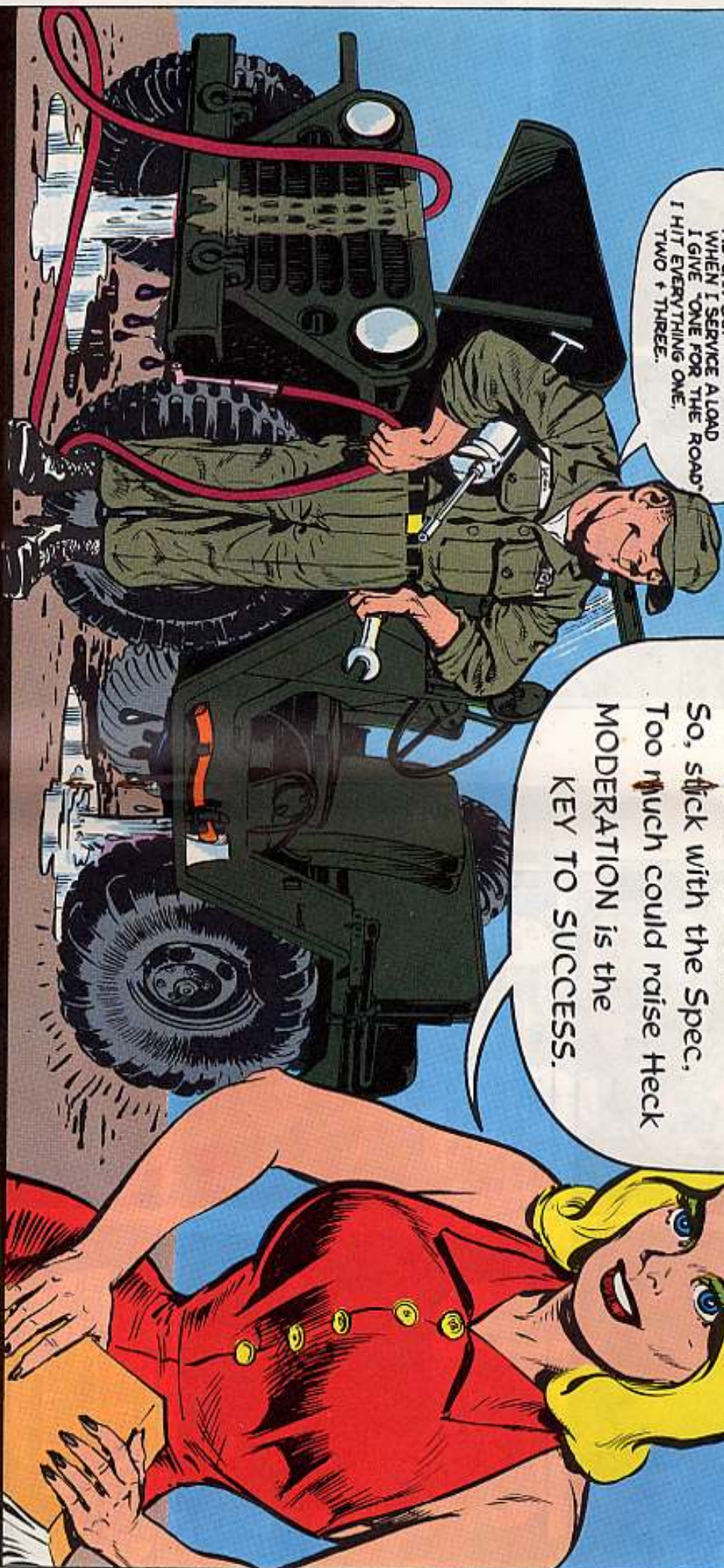
ZOWEE! LOOKIT HEDE... THIS LIL' OL' LIST FELL OUTA HIS LIL' OL' POCKET. SHAZAYUM! IT'S ALL THEM PM GOOFS... HMMM... AH GOT SOME TIME A-FORD THET PATROL.

**Joe's**

# Dope Sheet

I'M AN EAGER 'OL BEAVER,  
YOU SEE...  
I MEAN WELL, I'M "GUNG HO"  
AS CAN BE  
WHEN I SERVICE A LOAD  
I GIVE "ONE FOR THE ROAD"  
I HIT EVERYTHING ONE,  
TWO + THREE.

In Maintenance  
Keep clear of Excess!  
To Go "Ape" is as bad  
As to Guess!  
So, stick with the Spec.  
Too much could raise Heck  
MODERATION is the  
KEY TO SUCCESS.



**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.



LOW OIL IN AYER  
CLEANERS. MAHT  
JES FILL 'EM WAY UP/  
RAHT TO TH' BDM.  
YASUH, AH JUST  
FEELS GOOD DOIN'  
TH' OL' SARDG-IENT  
& GOOD TURN.



IT SAHYS THET 3/4 TON  
HAS MAHTY LOW TAHRS. SO  
AH'LL JIST FILL 'ER WITH  
AYED AND GIVE 'ER AN  
EXTREE BLAST FO' GOOD  
LUCK.



LOOKIT THIS HYAD  
COMMO. THEM CABLES  
LOOK MAHTY LOOSE  
AH'LL GIVE 'EM A  
LICK O' TIGHTENIN'.

SNAP  
CRACK



WAHL NOW! THEM THAR  
M16 RAH-FILES APPEAR A  
MITE UNTIDY. THAT'S A SNAP!  
AH'LL JUS' STRIP 'EM WAY  
DOWN 'N' SHINE EVERY  
LAST LIL' OL' PART.



THAD NOW ... WON'T THE OL'  
SARGE BE GLAD FO' MAH  
HALP? SORTA MAKES A  
FELLER FEEL GOOD TO DO  
THET EXTRY BIT... UH-OH  
BEST GIT WITH MAH  
PATROL NOW.



QUIET NOW...  
WE'RE IN  
AGGRESSOR TERRITORY.  
KEEP DOWN SHIPPE  
...HAND SIGNALS  
ONLY!!

YUP,  
SARGE.



PSST... ABE YOU'RE THE BEST SCOUT WE HAVE. SO GO "POINT" AND CHECK OUT THAT SMALL VALLEY UP AHEAD.

WILL DEW, SARRG-IENT



MAN! THOSE DEFENDING FORCES DEALLY GOT US GOOD! WE'DE TRAPPED... NO VEHICLES, LOW ON AMMO 'N' WEAPONS. WE'DE DRAGGIN' FOR SUDE.

?



WAL... HI, OL' CHARLIE.



IT'S ME, SHIPPE. AH SHORE HATE T'SEE YEW AGGDESSOD FELLAS LOSE SO EARLY IN THIS HEDE WAD GAME... MEBBE AH KIN' DO YEW A KAHNDNESS.

LIKE HOW?



WALL... SEE THIS LIL' OL' LIST... YOU JUST GO 'N' PSSST PSSSSST PSSSSST PSSSSST!

GREAT!



RED ALERT! AGGDESSODS DAIDING THE SUPPLY ADEA AND MOTOR PARK!

MOVE BRAVO INTO SECTOR SEVEN NINE FAST!



THAT CUTS IT! NOW WE GOTTA BE DEADY FOR THEM "AGGIES" TO ATTACK US, AND MAYBE AMBUSH THE RELIEVING FORCE.

DON'T FDET NONE, SARRG-IENT! HOW ABOUT LEAVIN' A HOLDIN' FORCE WHILE WE GO WITH A MO-BILE TYPE UNIT AND AMBUSH 'EM FIRST!?

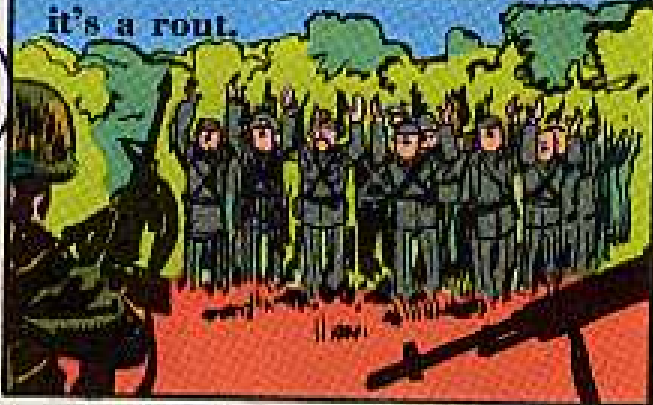
GO 'WAY SHIPPE!

THEN, TH' HOLDIN' FORCE A-BUSTS OUT, 'N' WE CRUNCH 'EM BETWEEN US AN' SHUH-ROUND 'EM... HOW'S THET SARRG-IENT?

HUH! WHERE DID YOU LEARN THAT, SHIPPE?

AH READ A MITE,

At dusk, the aggressor attacks, but is mysteriously stalled . . . the defending units counter, and it's a rout.



LOOKIT ALL THE GEAR THEY SWIPED, AND STILL WE WON, HAR, HAR

OH YEAH, WE WAS "HAD" ALL THIS STUFF SHIPPE TOLD US ABOUT, CRAPPED OUT WHEN WE USED IT,

SHIPPE DID IT AGAIN!!

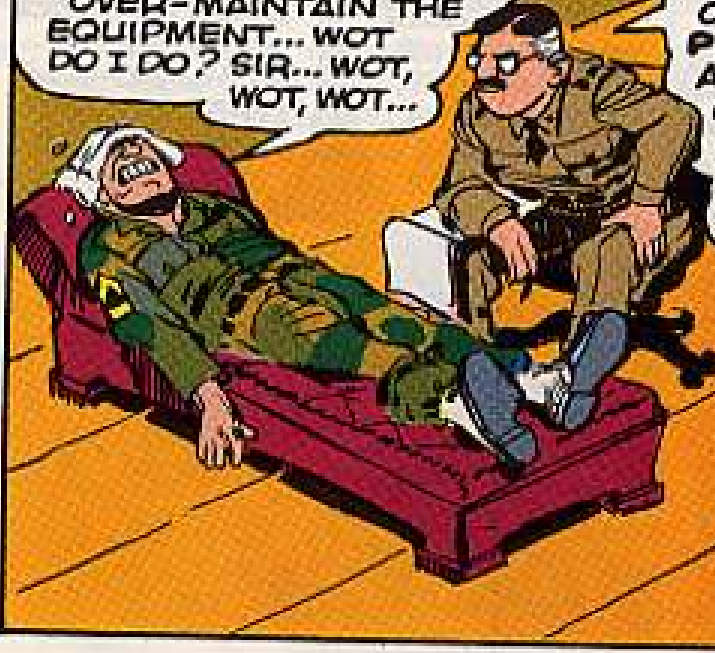
YEAH! ALL THE STUFF WAS OVER-MAINTAINED... OIL TOO FULL, HARDWARE TOO TIGHT, WEAPONS OVER CLEANED! ... THE WORKS!! NOTHING OPERATED FOR VERY LONG.

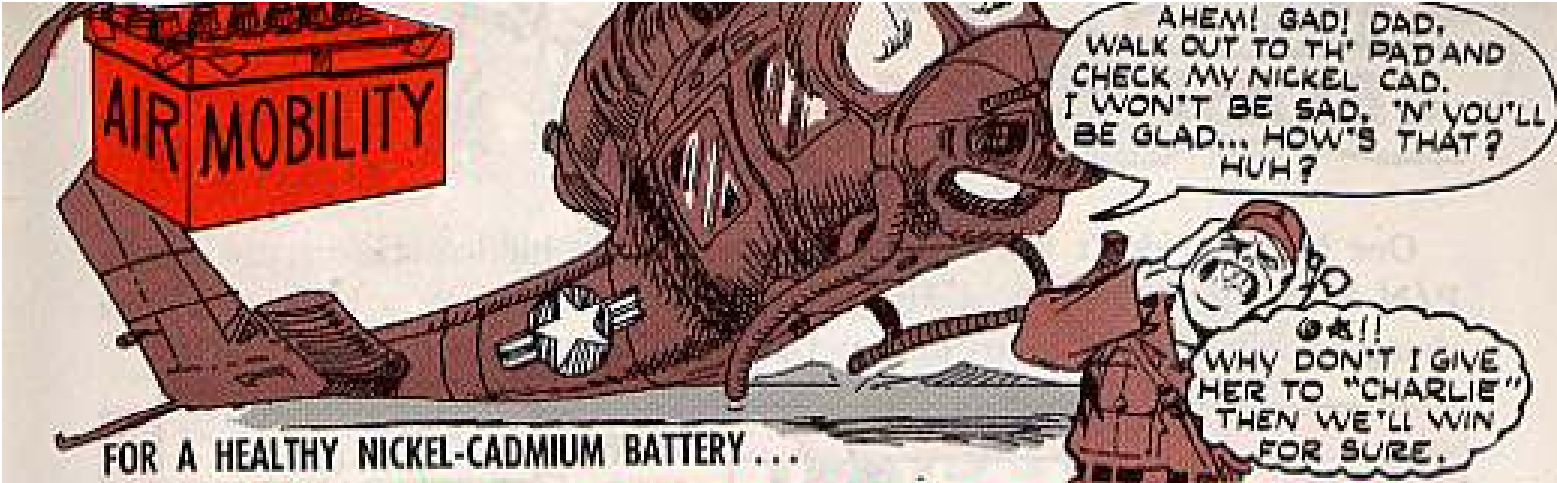


PLEASE, SIR... SOB: WOT DO I DO WITH HIM? HE DID WIN THE EXERCISE FOR US... BUT HE DID OVER-MAINTAIN THE EQUIPMENT... WOT DO I DO? SIR... WOT, WOT, WOT...

FOR YOU SARGE, TRANQUILIZERS. FOR HIM... A LIBERAL DOSE OF TM'S AND PM PROCEDURES. AND A LECTURE ON ADHERENCE TO SPECS... NOW TELL ME ABOUT YOUR CHILDHOOD.

OH-H-H-H-H  
WHEE  
THREW  
GRANNY'S  
STO' TBETH  
IN TH' CHURN  
TUN GIT  
BUTTER WITH  
A BITE IN IT...  
AH-HA-H-H-H-H





FOR A HEALTHY NICKEL-CADMIUM BATTERY ...

## GIVE HER REGULAR SERVICING

When a hunk of feminine pulchritude struts by she's got to be handled just right if you hope to make an entry in your little black book.

The same deal goes for the nickel-cad battery in your aircraft. It's got to be serviced at the right time and place to stay in the pink.

could lose fluid due to an overflow. Even worse, the hydrogen and oxygen gases generated during charging could be ignited by a spark or flame and blow 'er sky-high!!!

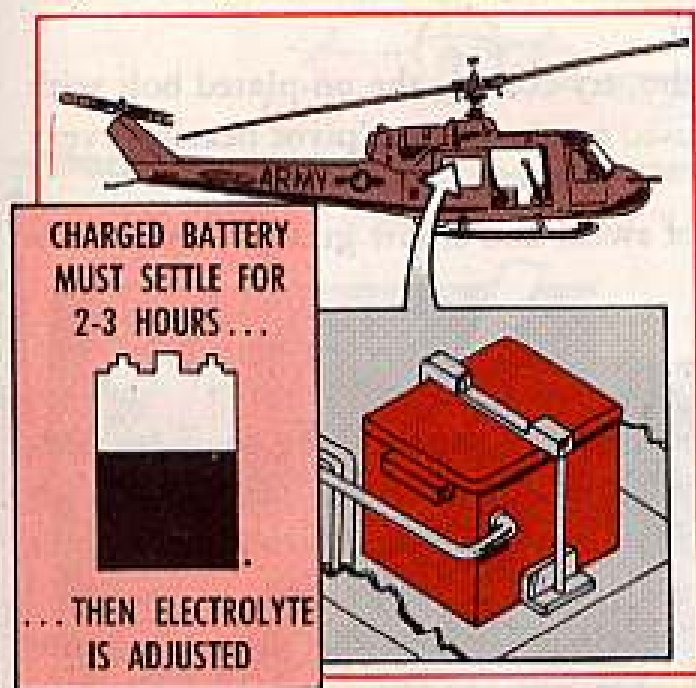
'Course you couldn't get an accurate reading on what the right fluid level should be for an installed battery, even if you wanted to.

The only way to determine the true level is after the battery has been cycled (discharged and charged). That's why battery pubs say to check the electrolyte level after the battery has been fully charged and left to settle two or three hours.

Then, if the level above the plates is less than the measurement given in the battery pub, distilled water is added. If it's above the level given, electrolyte is taken out.

So what's the right time and place to service the nickel-cad battery in your Huey?

Why, every Second Intermediate inspection, when you take the battery out of your bird and send it to the battery shop for inspection, repair, charging capacity test . . . and adjustment of electrolyte level.



Take the nickel-cad in your Huey (UH-1A, B).

Having the right electrolyte level is most important. But you never want to "top off" a nickel-cad while it's still in your bird. If you do she'll be over-filled. Since the electrolyte level rises higher as the battery is charged in your bird, you

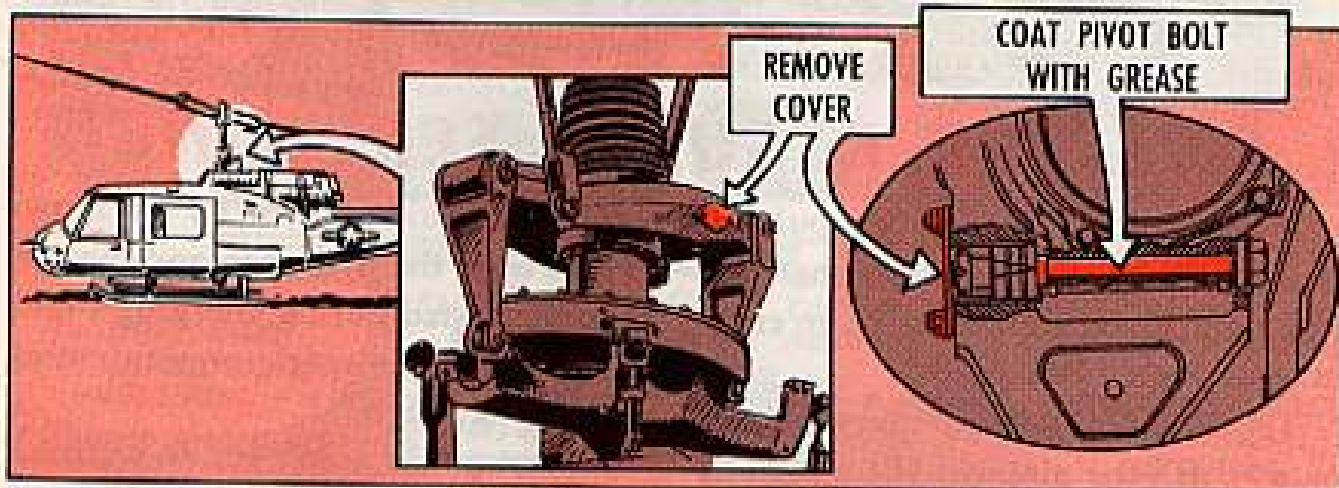
RUSTY BOLT?

**GREASE**

**STOPS**

**RUST!**

One bolt you don't want rusted in place is the hidden scissors pivot bolt, P/N NAS 464-8-90, in your Huey. Otherwise, you'll have a heck of a time changing it every 300 hours on the UH-1D or 400 hours on the UH-1B.



If you're in rice paddy territory, or any damp climate, rust can be a problem. That's why a new bolt, P/N NAS 464-8P-90, is in the works. The "P" means it's cadmium plated to prevent rust.

Until the new baby comes your way, tho, try coating the un-plated bolt with grease, MIL-G-25537 . . . the same type used on the scissors pivot bearing every 200 hours.

The greased bolt will save you a lot of sweat and elbow grease — when it's time to pull 'er again.



**PLEASE  
"DON'T  
OIL ME!"**

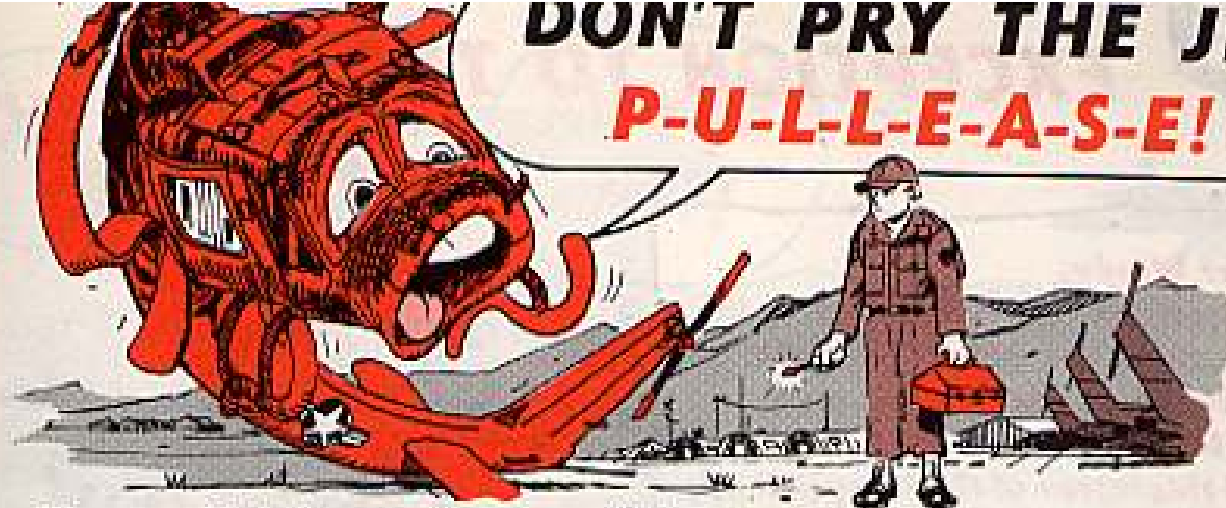
It seems like the natural thing to do — adding a few drops of oil to the tail rotor pitch control chain in your Huey (UH-1). But don't . . . it could ruin your whole day!

An oiled chain attracts dirt like a vacuum cleaner and pretty soon, instead of adding to the life of the part, the grit built up will actually wear out the chain in short order.

That's the reason for the caution when you replace the pitch control according to the poop in Chap 2, Sect IX of TM 55-1520-211-20 (Apr 65).

You never add ANY kind of lubricant, sure 'nuff.

# DON'T PRY THE JET — P-U-L-L-E-A-S-E!



You wouldn't keep your Huey (UH-1) on the ground any longer than necessary when pulling a Preventive Maintenance Periodic, now would you? 'Course not.

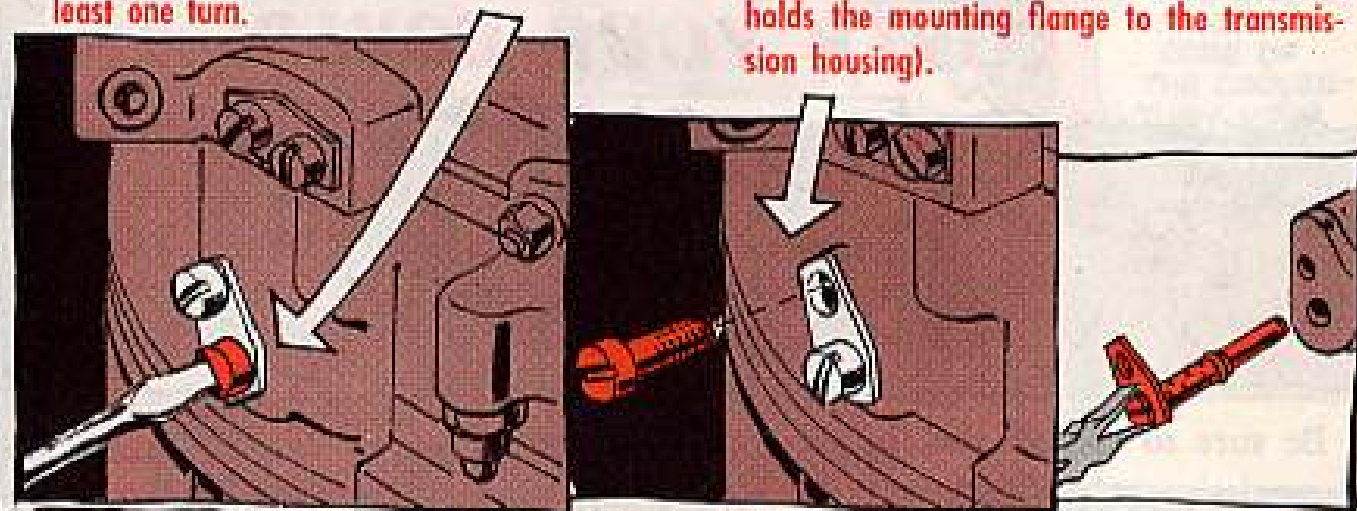
Yet that's what could happen if any of the transmission oil jets get busted because they're not pulled right when you take them out for cleaning. Getting replacements may take time.

Take the "D" Model. The removal poop on the oil jet is in Chap 2, Sect VII, Para 7-33 of TM 55-1520-210-20 (1 Oct 64). The operation to focus on is just after you cut the lock wire between the two screw heads.



You loosen the screw in the jet barrel at least one turn.

Take out only one screw (the one that holds the mounting flange to the transmission housing).



Remember that the jet flange and barrel are a one-piece deal. Taking out both screws and using a screwdriver behind the jet flange as a pry will snap-off the barrel inside the housing. Then you've really got your work cut out for you!

To prevent this type of revoltin' development, make with your duckbill pliers on the loosened screw in the barrel. Pull straight out and the jet will come out — in one piece.



# EXCEPTION TO THE RULE

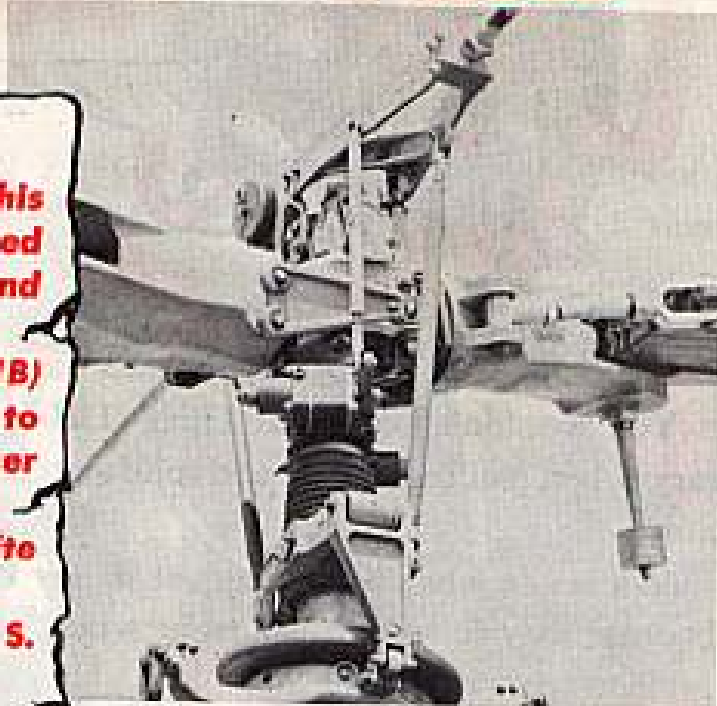
Dear Windy,

Stop me if you've heard this one. Bolts are generally installed with the heads up, forward and in the direction of rotation.

If this is true of the Huey (UH-1B) main rotor pitch change link to pitch change horn bolt, the cotter pin scratches the horn.

Can we put the bolt in opposite to the direction of rotation?

SP 6 B. S.



Dear Specialist B. S.,

You're stopped—from following the general rule.

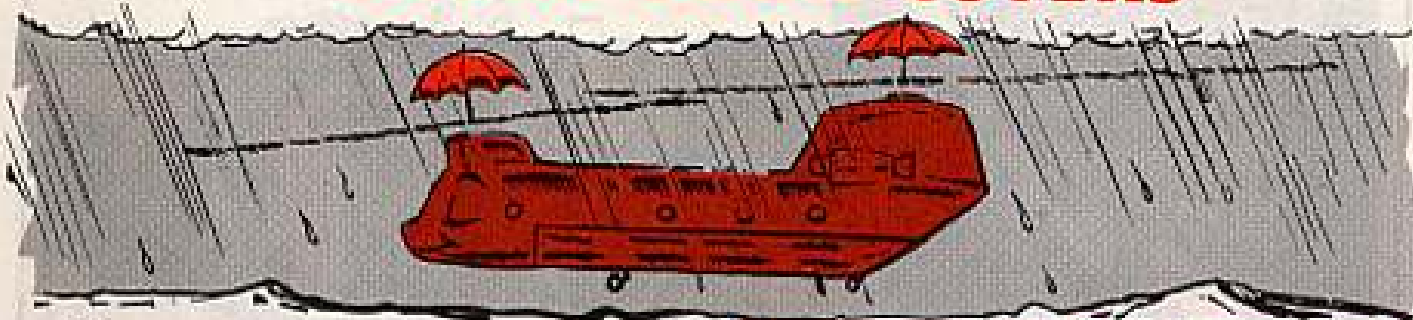
There're sometimes exceptions to a general rule . . . like when binding and clearance would require they be installed opposite to normal.

The manufacturer puts the bolt in opposite to the direction of rotation on the UH-1B and UH-1D models. This poop should wind up in your pubs soon.

Never guess . . . always follow the installation instructions in your maintenance manuals.

## COVER YOUR COVERS

*Windy*

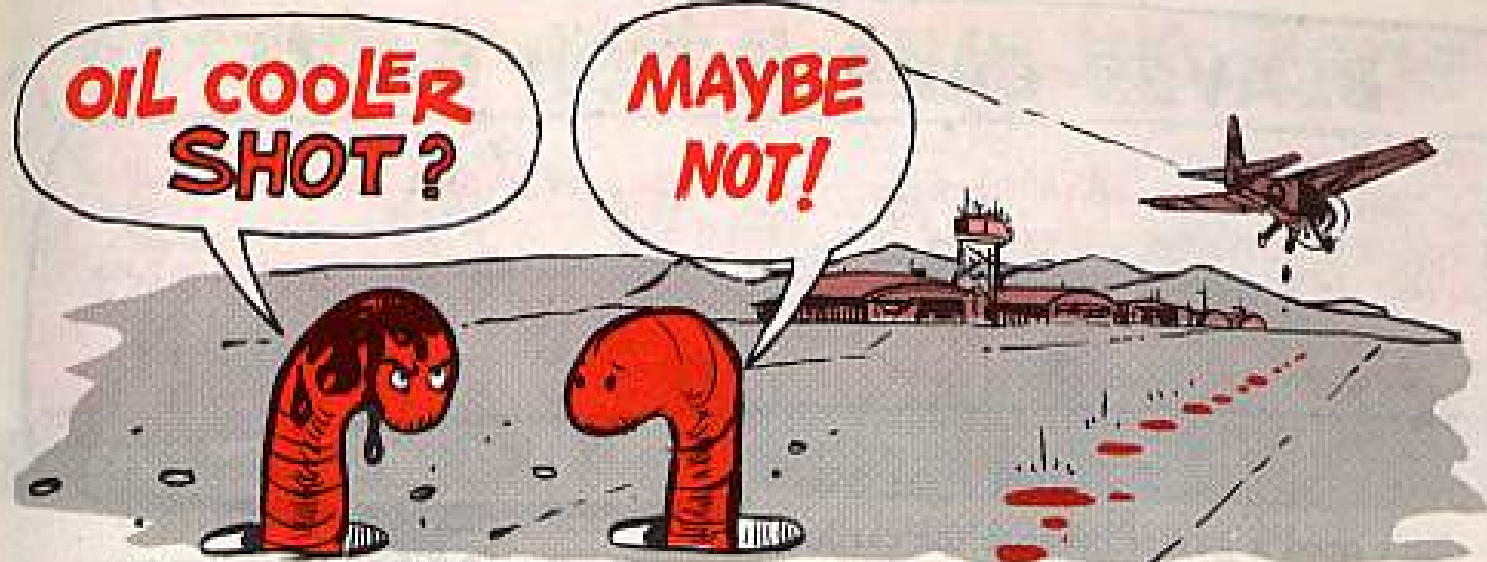


Be sure to eyeball the fore and aft transmission rain shield cover on your Chinook (CH-47) during a Daily.

The area to focus on is the 4-in inner band.

Any separation or cracking means that the cover gets replaced pronto. After all, the rotor blade area is no place for a flying saucer!





When it comes to discovering the source of an oil leak — if at first you don't succeed — look, look again.

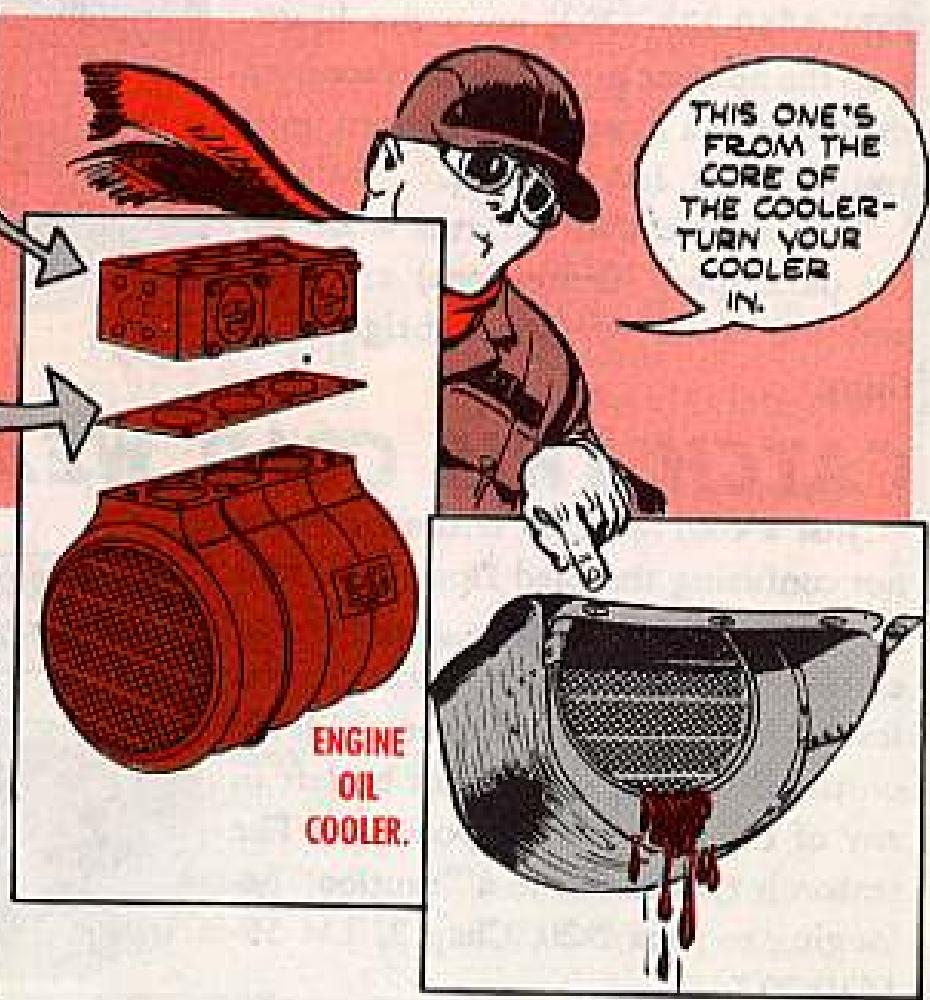
'Tis mighty important to find out what's leaking, otherwise you could be wasting time and elbow grease changing the wrong part.

Take the engine oil cooler in your Beaver (U-6). TM 55-1510-203-20P (Sep 64) lists the cooler as a recoverable item. So, it goes thru direct exchange channels back for repair. The trouble is many of them are A-OK and don't need repair.

When a cooler is serviceable, the leak is caused by either faulty oil temperature valve gaskets, or a bum gasket between the valve body and the cooler, sure 'nuff.

IF LEAK IS IN VALVE GASKETS, PUT ON NEW VALVE.

IF IT'S A SHOT VALVE-TO-COOLER GASKET, PUT ON A NEW ONE.



# BEAVER CARBURETOR GASKET

Dear Windy,

When we removed the carburetor on our Beaver (U-6) there was a gasket on the adapter mounting pad.

TM 55-1510-203-20 (29 Aug 63) Chap 2, Para 4-356 says a gasket isn't required.

What gives?

H. V. H.

Dear H. V. H.,

Your maintenance pub is right. You don't need a gasket because the carburetor and mounting pad mating surfaces are lapped to give you an air-tight seal.

However, if the adapter or carburetor mounting surface is worn or scratched, it should be re-lapped. A gasket isn't used because it contracts and will give you an induction leak after awhile.

To lap the adapter, put a sheet of abrasive silicon carbide paper, 320A, FSN 5350-224-7203, on a flat block. Rub the adapter mounting surface over the paper in a figure eight pattern until you get a flat, level surface.

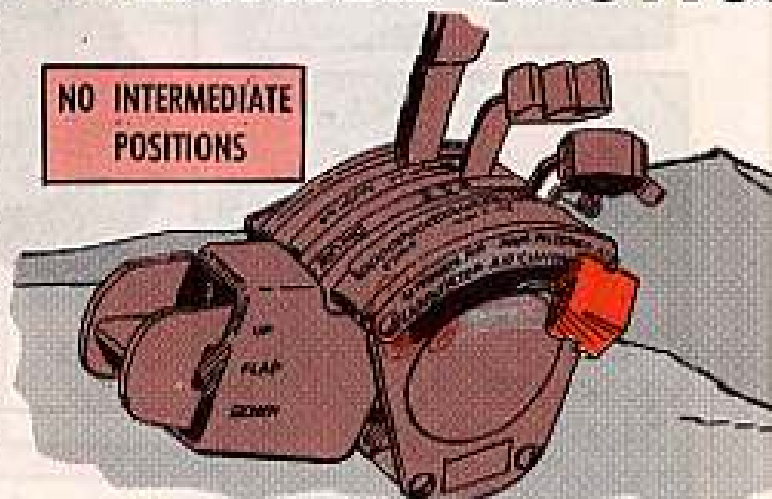
The surface will be level when all the dark spots (depressions) are gone and the entire surface is bright and shiny.



*Windy*

## CATCH THIS COLD WEATHER CAUTION

Just a cold weather reminder about not confusing the Bird Dog (O-1) with the Beaver (U-6) when it comes to operation of the carburetor air control lever. Unlike with the Beaver, the lever on the Bird Dog should not be left in any of the intermediate positions. The reason is spelled out in a "caution" belonging to para 2-20, Chap 2, TM 55-1510-202-10.



# GET YOUR SHIP A CHIP DETECTOR



Preventive maintenance and safety are at least two good reasons why you want to install a chip detector plug and cockpit warning light as soon as the kit for your bird is available.

Some of the kits have been around for a few years, while others are just now being distributed. To help your record keeping, here's a complete listing of all the MWO's that authorize you the installation kits for each model aircraft.

The new kits should be available to you within one month of the date you receive the MWO publication. If not — SQUAWK!

## ENGINES

Aircraft	MWO	Date
U-8	55-1510-201-34/3	27 Aug 64
O-1A, 1A, 1E, T01E, O-1F	55-1510-202-34/9	27 Aug 64, C2 (14 Apr 65)
U-6A	55-1510-203-34/4	15 Feb 65
OV-1B, C	55-1510-204-34/47	15 Oct 64
CV-2B, YAC-1	55-1510-206-34/66	15 Apr 65
U-1A	TM1-1U-1A-1039	8 May 62 C2 (29 Oct 64)
UH-19	55-1520-201-34/6	18 Sept 64
UH-19D	55-1520-201-34/1	19 Mar 62 C1 (27 Mar 64)
CH-34	55-1520-202-34/16	10 Jan 64
CH-37	55-1520-203-34/12	16 May 63 C1 (22 Sept 64)
OH-13S, H, G, E	55-1520-204-34/30	July 65
CH-21C	TM1-1H-21C-1023	27 Oct 60 C1 (7 Apr 61)
OH-23C, D, F & G	55-1500-200-34/1	23 Feb 65

## TRANSMISSIONS

Aircraft	Transmission	MWO	Date
UH-19C, D	Main	55-1520-201-34/7	15 Apr 65
CH-34	Main	55-1520-202-34/32	14 Oct 64
CH-37B	Main	55-1520-203-34/12	16 May 63 C1 (22 Sep 64)
CH-21	All	55-1520-205-34/17	21 Oct 64

# GIVE A GOOD LAST LOOK AT YOUR

## M22 SUBSYSTEM



You wouldn't be getting your fabulous salary as a 427, crew chief or gunner if you weren't one of the real hep guys in the outfit.

Even so it'd pay you to remind yourself to hit these key points just one more time after you're loaded for bar and y' think everything's about under control.

**EXPLOSIVE CARTRIDGE** — Live cartridge missing, receptacle dirty.

**LOCKING ARM** — Not hooked on missile.

**JUNCTION BOX LOCKING GATE** — Not hooked all the way.

Even though the locking arm's secured with a live cartridge, double-check that the box's locking gate's latched in the full closed position. If it pulls loose in flight, your AGM-22B's gonna take the junction box with it on a free flight — a real unguided missile!

**GUNNER'S SIGHT** — Lenses dirty; levers and knobs won't work easy or hold like they should.

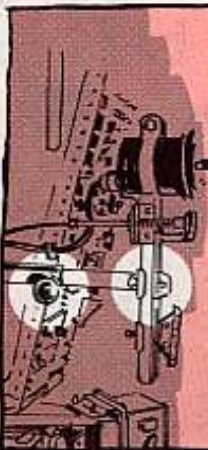


**EXPLOSIVE BOLT** — Cables frayed, shielding broken, connector in wrong.

You 427's keep it connected to the shoring plug (safe). You gunners connect it to the firing plug just before take-off. After every check, though, don't forget to latch the cover down to ward off unfriendly weather attacks.

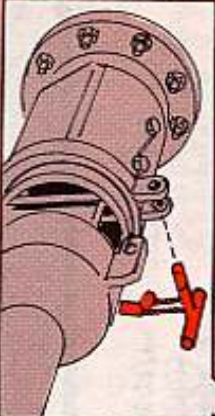
**ARMREST ASSEMBLY** — Adjusting knob and thumbscrew loose.

The armrest's got to be extra tight so's the gunner can bullseye that missile with the control stick.



**LAUNCHER MATING JOINT** — Not real tight.

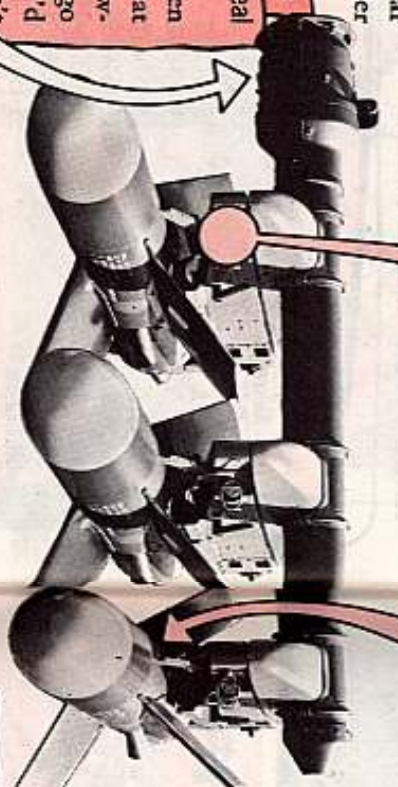
First check the joint itself, then the locking pin and cam nut. That joint's gotta be clam-tight. However, could be the locking pin'd go in OK and the cam nut's arrow'd be on CLOSED and you still won't have a tight fit at the joint.



If you don't have a tight mating and the arrow's on CLOSED, could mean the cam gave out or the housing's on the bum — a fix-up job for you 427's. Be careful,

though, you don't turn the cam nut beyond CLOSED or it'll loosen up on you. And don't forget to check that the wingnut's tight and has a lock washer under it.

Another thing — you gunners wanta be mighty sure you pull out the locking pin before a firing mission take-off. Else, you won't be able to jettison in a pinch. And be sure you stow that pin in the cabin for later use.



**PILOT'S SIGHT** — Reflector assembly dirty, scratched; cable not plugged in lamp housing.

Precatch and practice keeping fingers off the reflector — fingerprints etch the glass. And clean it only with lens tissue or a clean lintless rag.



Keying your mike before your radio completely warms up is a good way to cut down transmitter tube life.

Since transmitter tubes have to be bigger, with heavier filaments, they all ways take longer to heat up than the smaller receiving tubes. While this is true for most of your aircraft radios, it's particularly so for your UHF set because of the large amounts of power needed for proper UHF operation.

So let's take the AN/ARC-55 UHF radio for instance. The larger air-cooled transmitter tube is going to take longer to warm up than the little receiving tube for the same set. The modulator tube provides audio modulation for the transmitter tube and deserves the same amount of warmup



**YOU CREW CHIEFS...  
HELP SAVE MY LIFE!**



YEAH!

You normally hear receiver tubes come in with a rushing noise in your earphones somewhere between 10 and 15 seconds after you turn the set on during a cockpit check. But those transmitter and modulator tubes are still cold. They'll take as much as a minute or so to warm up to operate

ing temperature range from a cold start... especially when the aircraft has been standing on the ramp overnight. Sure! You can contact the tower on cold tubes. But any time you operate transmitter tubes either below or above their rated temperature range, you shorten tube life. From the economic point of view, transmitter tubes cost

over \$13 each, using the ARC-55 set as an example. More important — you weaken the power output of each tube by forcing it to operate cold. This habit slowly deteriorates the coating on the cathode inside of each tube — and you can't see any of this happening. But a poor coating will cause a gradual decrease in output energy from each tube, eventually making that radio set unreliable. Next thing you know you have made an aviator type, one each, very unhappy — without warning. A word to the wise is usually sufficient. A good habit to crank into your inspection sequence would be to check the log book while you're taking "tube

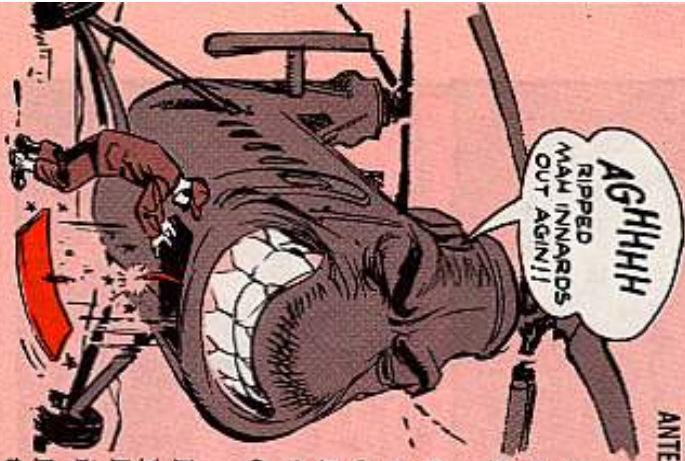
ARN-30 OMNI ANTENNA...

## CAREFUL WITH

If your Shawnee (CH-21C) comes with its AN/ARN-30 omni ramshorn installed under the nose, you've got a built-in gravity-type problem.

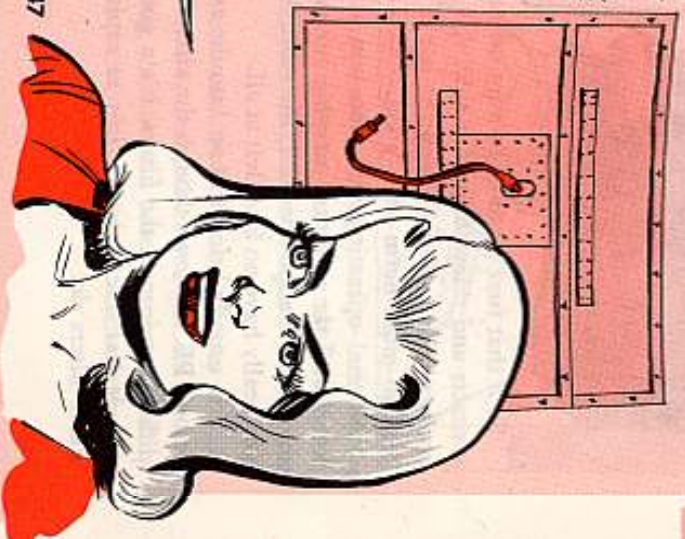
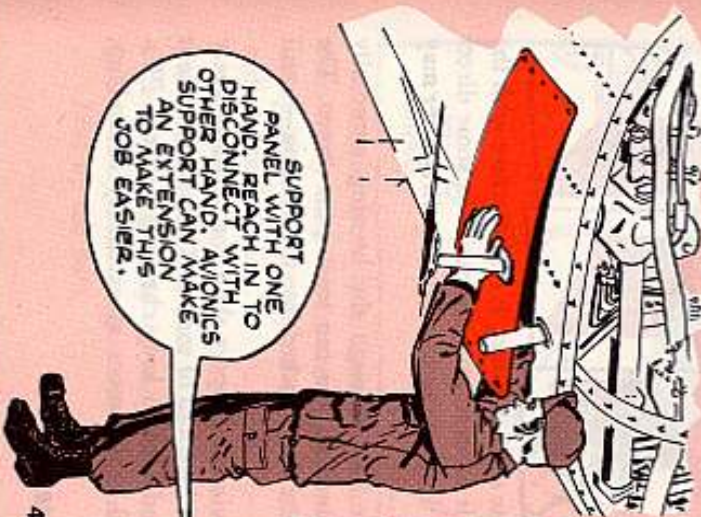
Any time you pull that access panel, remember the antenna coaxial cable connection. Letting the panel drop without first disconnecting the cable by hand will rip the UG-88 plug connector loose from the cable. The right way is to support the panel with one hand while you reach in to disconnect the cable with the other hand.

To make it easier, you can ask avionics support to make you a cable extension the first time you have to remove that access panel. This allows enough slack in the cable for you to reach in from one side while the opposite side of the panel is still being supported by its fasteners.



## THE CONNECTOR

SUPPORT PANEL WITH ONE HAND. REACH IN TO DISCONNECT WITH OTHER HAND. AVIONICS SUPPORT CAN MAKE AN EXTENSION TO MAKE THIS JOB EASIER.

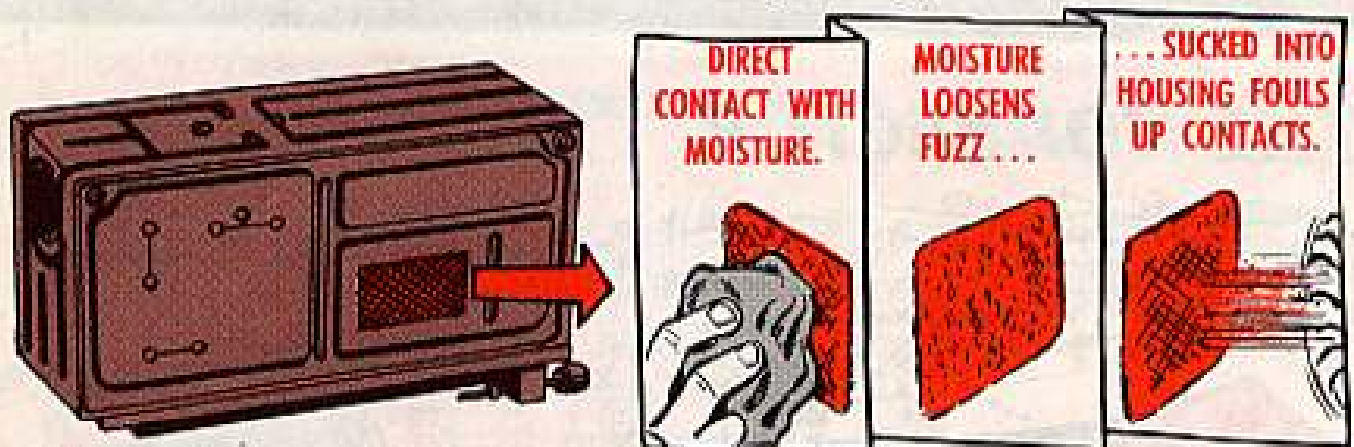


# CASE OF THE DISAPPEARING FUZZ



The RT-294 receiver-transmitter in your AN/ARC-44 FM radio set is supposed to have two fuzzed-up air filters. No fuzz spells trouble.

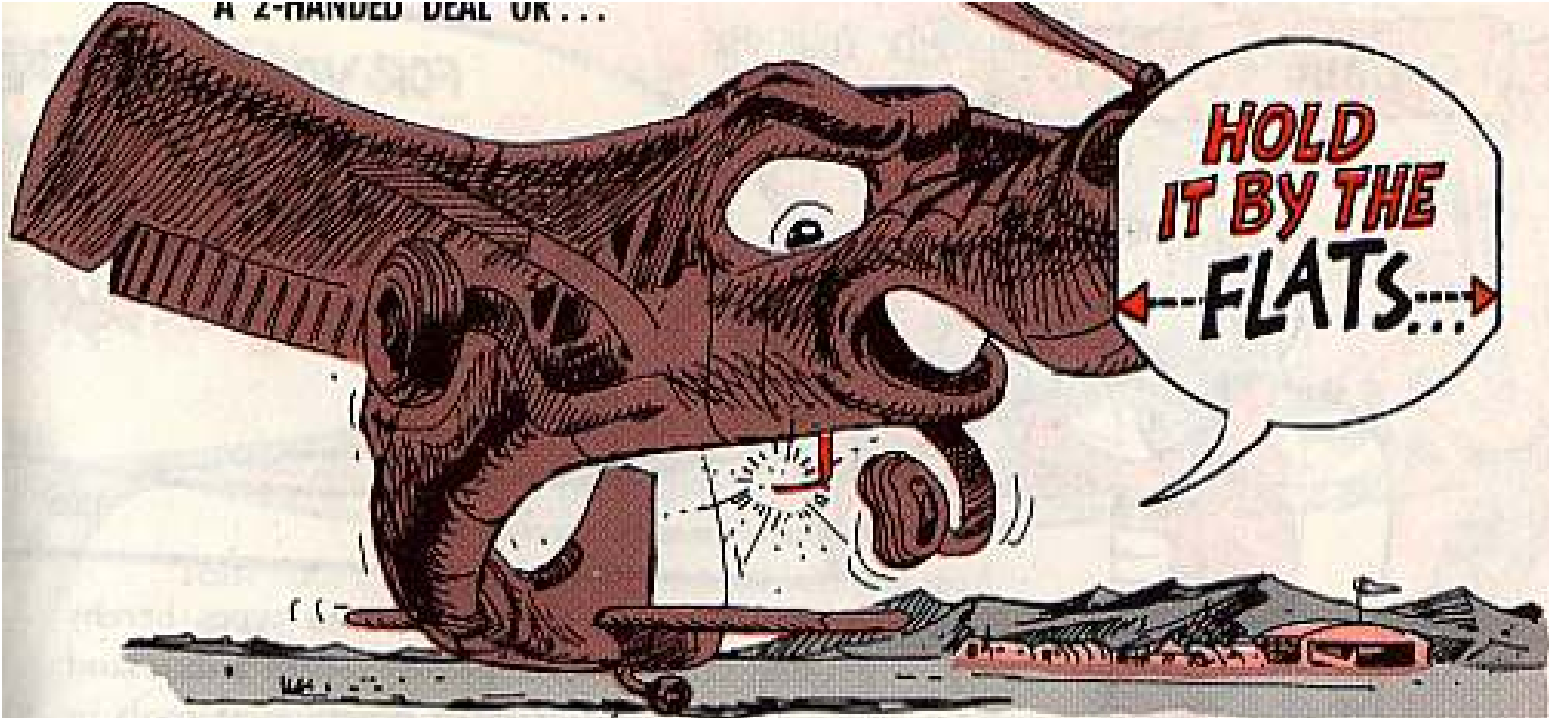
Depending on which side you look, this filter lays alongside the megacycle crystal turret . . . or the 1/10 and whole megacycle gear trains.



So if that fuzz starts to powder off one or both filters, it can interfere with the contacts and relays on either side. All it takes to start the action is some direct contact with moisture. Even the use of a damp rag to wash off a dirty filter may lead to more harm than good.

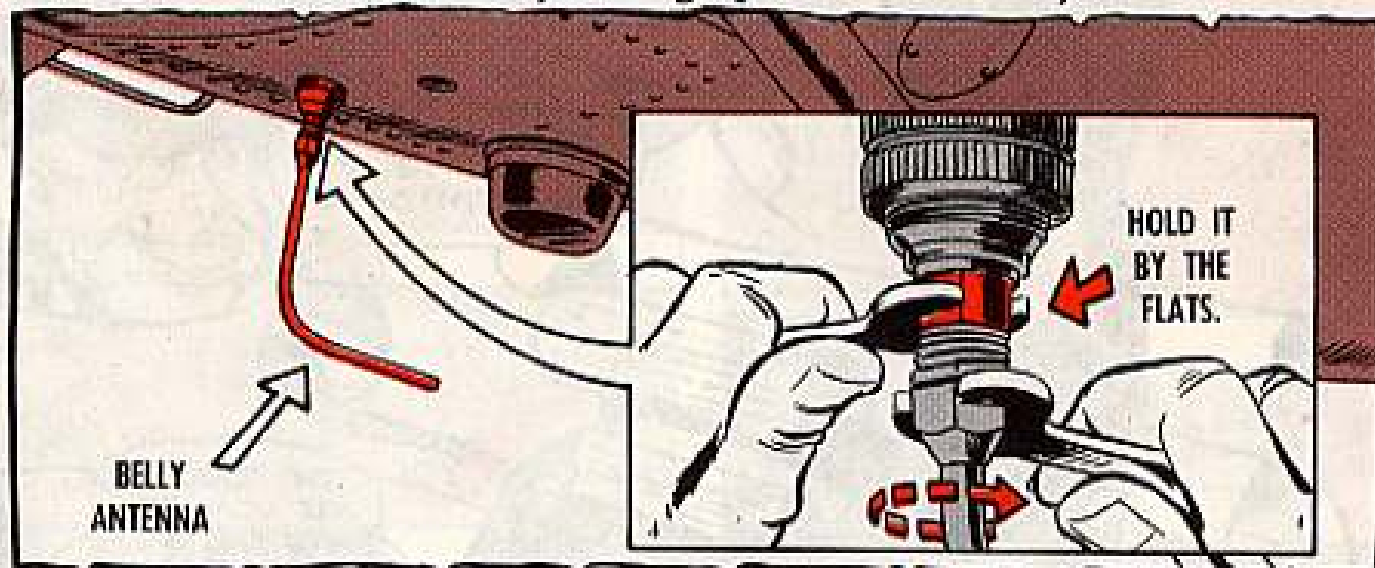
Normal operating vibration and air flow through the housing eventually knocks off the moisture-carrying fuzz until all you can see is pure screen. The more fuzz that powders off, the more dirt that's sucked into the housing —until you really have no filter left at all.

You usually bring this set into the avionics support shop for cleaning every second PE. But even though the aircraft locations of some R-T housings make it difficult to inspect the filters, it's a good idea to keep checking between PE's. Powderless filters require just as rapid replacement as extremely choked up, dusty filters do.



Every piece of equipment has its weakest part. So you always handle that part with care in order not to damage the entire assembly. Same goes for the base assembly insulator on the belly antenna (AT-701/AR) for the AN/ARC-60 UHF command radio set.

You can loosen or break this insulation by forgetting to hold the insulator bushing steady with a wrench before attaching the antenna rod to the base. Holding the bushing by its flats will keep the tightening torque action from making the insulator turn as you snug up the antenna rod jam nut.



The base assembly is connected to an impedance matching coil — which can turn freely once the insulator gets loose or broken. The more the coil turns, the quicker it will snap off . . . and then you need a new antenna to bring your radio back in action.

Sometimes you may want to remove the antenna rod to make it easier to clean the fuselage and the base of the antenna. But even when you get an oil leak streaming back along the belly, saturating the antenna base, you can clean up just as easily with a rag in one hand and the insulator bushing in the other one . . . held by the flats.



FOR YOU TELETYPE REPAIRMEN...

HERE'S A **PS** TO AN **SM** ON **TT** TOOLS

Feast your eyes on the menu of tools being spread before you.

**JUST ONE TIP BEFORE THE TOOLS TAKE IS TOLD. THE CONTACT BENDER (FSN 5815-389-9134) HAS BEEN DELETED FROM THE ADDITION TO THE BASIC TE-50-B SET.**












The following names and stock numbers are for tools listed in Change 1.

You teletypewriter repairman types hereby get first crack at that 'picture worth a thousand words' . . . an illustrated premiere of tools in Change 1 (Mar 64) to SM 11-4-5180-S05 (May 63) on TE-50-B tool equipment set (FSN 5180-356-4602).

So, if your tools strayed or were mistaid, and you need to know what's what on the tool table,

HEY!  
WHERE'S THE  
TOOLS? AND  
WHO'S THE  
BR-(oops) DAME?

TH' TOOLS  
ARE VONDER,  
AND SHE'S  
CONNIE RODD!  
MAN... DON'T YOU  
KNOW ANYTHING?

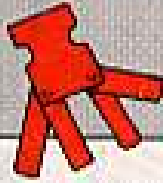
ADAPTER, HANDWHEEL FSN 5120-856-4436		CONTACT SPRING BENDER. FSN 5815-389-9134	
BENDING TOOL (Multi- ple transmitters). FSN 5815-412-5057		FILE: Round type, double cut, bastard cut face; 6 in long, 3/8 in dia. FSN 5110-234-6548	
BRUSH, HOG BRISTLE (Set of 3). Flat chisel edges, for use with oils 3/8 in wide, 1 1/2 in long. FSN 8020-244-0153		FORK, TUNING: 120 VPS. FSN 5815-412-9066	
CLIP, ARMATURE FSN 5815-091-9568		GAUGE: FSN 5815-370-1300	
CONTACT SPRING AD- JUSTER. FSN 5815-412-9119		GAUGE: Punch ball arm. FSN 5815-784-0317	
		GAUGE: Switching con- tacts. FSN 5815-412-8071	

GAUGE, TAPELID:



**FSN 5815-125-4850**

GAUGE, THICKNESS:  
Brass.



**FSN 5210-985-6465**

GAUGE, TOP PLATE AD-  
JUSTING.



**FSN 5815-784-0319**

KEY, SOCKET HEAD  
SCREW:  $\frac{3}{8}$ -in across  
flats; screwdriver type;  
plastic handle with  
cushion grip.



**FSN 5120-892-5999**

BLADE, SOCKET HEAD  
SCREW KEY:  $\frac{3}{8}$ -in  
across flats; 6 in long;  
straight hex stock.



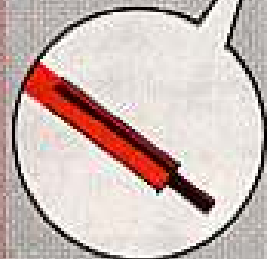
**FSN 5120-892-5994**

KEY, SOCKET HEAD  
SCREW:  $\frac{1}{8}$ -in across  
flats; screwdriver type;  
plastic handle with  
cushion grip.



**FSN 5120-892-6000**

BLADE, SOCKET HEAD  
SCREW KEY:  $\frac{1}{8}$ -in  
across flats; 6 in long;  
straight hex stock.



**FSN 5120-892-5996**



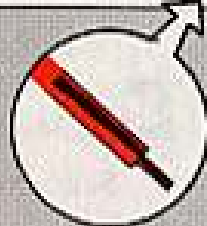
The following items make up the **KEY SET**, adjustable hex socket head screw (FSN 5120-875-6644).

KEY, SOCKET HEAD  
SCREW:  $\frac{3}{8}$ -in across  
flats; screwdriver type;  
plastic handle with  
cushion grip.



**FSN 5120-892-5998**

BLADE, SOCKET HEAD  
SCREW KEY:  $\frac{3}{8}$ -in  
across flats; 6 in long;  
straight hex stock.



**FSN 5120-892-5995**



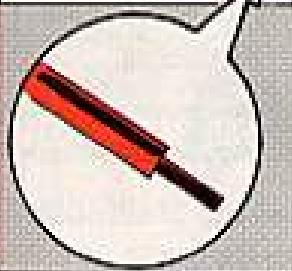
**NOTE: THE SOCKET HEAD SCREW KEYS COME WITH THE BLADES ALREADY INSERTED. ADDITIONAL BLADES ARE LISTED UNDER SEPARATE STOCK NUMBERS ABOVE.**

KEY, SOCKET HEAD SCREW:  $\frac{3}{16}$ -in across flats; screwdriver type; plastic handle with cushion grip.



**FSN 5120-892-6001**

BLADE, SOCKET HEAD SCREW KEY:  $\frac{3}{16}$ -in across flats; 6 in long; straight hex stock.



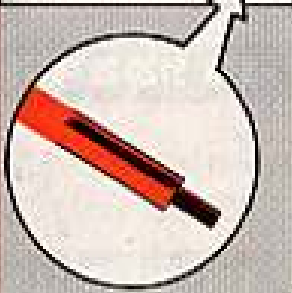
**FSN 5120-595-9369**

KEY, SOCKET HEAD SCREW:  $\frac{3}{16}$ -in across flats; screwdriver type; plastic handle with cushion grip.



**FSN 5120-892-6002**

BLADE, SOCKET HEAD SCREW KEY:  $\frac{3}{16}$ -in across flats; 6 in long; straight hex stock.



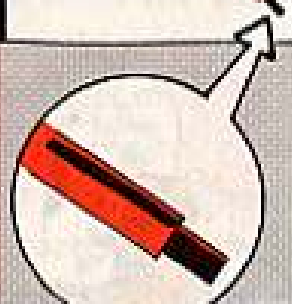
**FSN 5120-595-9365**

KEY, SOCKET HEAD SCREW:  $\frac{3}{16}$ -in across flats; screwdriver type; plastic handle with cushion grip.



**FSN 5120-892-6104**

BLADE, SOCKET HEAD SCREW KEY:  $\frac{3}{16}$ -in across flats; 6 in long; straight hex stock.



**FSN 5120-541-6993**

WRENCH, SOCKET HEAD SCREW HEX: (Set of 2)  $\frac{3}{16}$ -in across flats; L-type handle.



**FSN 5120-198-5398**

KEY LEVER REMOVER.



**FSN 5815-370-1301**

PIN, HINGE: Semicircle; type bar fulcrum;  $4\frac{1}{2}$ -in long,  $1\frac{3}{4}$ -in wide, 0.1562-in high.



**FSN 5815-356-3365**

PUNCH, DRIVE PIN:  $\frac{3}{16}$ -dia point; 4 in long; straight type.



**FSN 5120-242-3435**

PUNCH, DRIVE PIN:  $\frac{1}{4}$ -dia point; 4 in long; straight type.



**FSN 5120-242-5966**

PUNCH, DRIVE PIN:  $\frac{3}{16}$ -dia point; 4 in long; straight type.



**FSN 5120-240-6104**

REAMER: Hand taper pin type; straight rod shank with square end;  $2\frac{3}{4}$ -in long; spiral.



**FSN 5110-243-2003**

SCREWDRIVER, OFFSET:

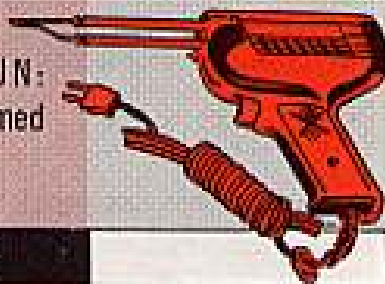


**FSN 5120-240-5244**

The TL-650/U soldering gun (FSN 3439-294-9568) and its tip (FSN 3439-535-4535) is being replaced by the following gun and tips as authorized by SB 11-593 (Oct 64).

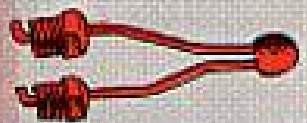


**SOLDERING GUN:**  
Transformer type, med duty.



**FSN 3439-729-6770**

**TIP, SOLDERING GUN:**  
Smoothing.



**FSN 3439-771-3718**

**TIP, SOLDERING GUN:**  
Soldering.



**FSN 3439-540-8998**

**TIP, SOLDERING GUN:**  
Cutting.



**FSN 3439-771-3719**

**TOOL BOX, PORTABLE:**  
Steel, with one removable tray; 22 in long, 8 in wide, 9 in high.



**FSN 5140-319-5079**

**WRENCH, SOCKET:** 1/4 in hex opening; spin type; 5 in long. (Note: Replaces FSN 5120-422-8587, Non-Standard Item).



**FSN 5120-293-0375**

**WRENCH, SOCKET:** 1/4 in hex opening; spin type; 6 in long.



**FSN 5120-241-3188**

**WRENCH, LONG REACH, SOCKET:**



**FSN 5815-370-1270**

**WRENCH, SOCKET:** 3/8 in hex opening; spin type; 6-in long.



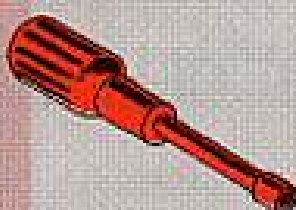
**FSN 5120-596-1263**

**WRENCH, TAP AND REAMER:** Adjustable; sliding T-type handle with ratchet; bolt tap holding capacity 0 to 1/8-in.



**FSN 5120-517-5347**

**WRENCH, SOCKET:** 3/8 in hex opening; spin type; 7-in long. (Note: Replaces FSN 5120-507-2385, Non-Standard Item).



**FSN 5120-222-1499**



# NEAT CABLE DRESSING'S NEEDED



Cutting WM-46/U cable for connecting ANGRY-3 through -8 series radio set components?

Whether installing or replacing, better make sure there's no cable shield strands sticking out past the bushing before soldering those 10 wires to the terminals of the MT-297/GR mount and C-375/VRC control box.



Maybe nothing'll happen right away, but the jarring and jolting of that vehicle can shake the frayed braid against a terminal and short out the radio set.

Clean cable cuts, as spelled out in TM 11-284 (May 53), will help keep that radio communicatin'.

A free-flying strand from the inner or outer shield of the cable'll make the radio lose its taste for talkin' — or listenin' — like you'd lose your taste for chicken if it had the feathers on.

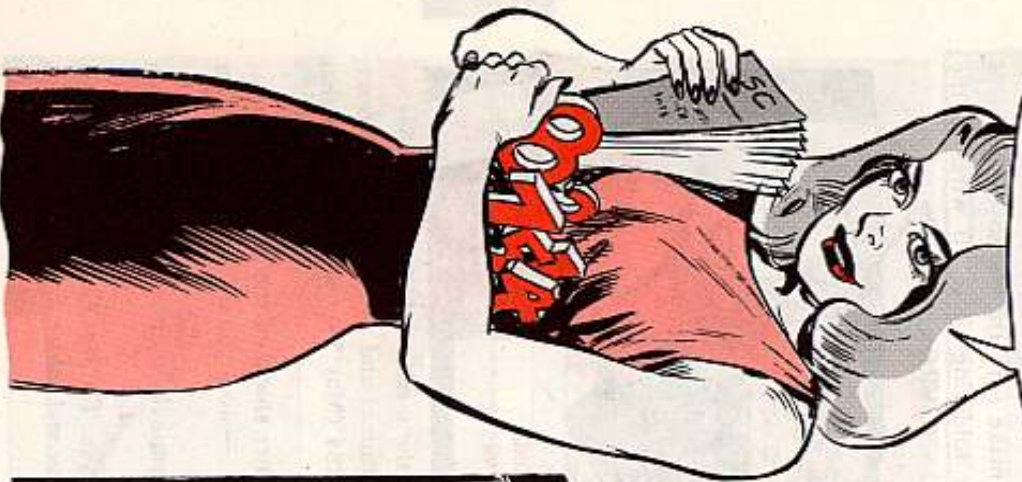
While you're soldering the wires to the terminals in the mount or control box make sure the solder is the resin core kind.

Acid flux is sorta corrosive, like it says in TB Sig 222 (Mar 60). Therefore, acid flux can't be followed by resin flux and solder . . . unless you wanna flirt with replacing the terminal panel.



## SUPPLY & PUBLICATIONS

THERE'S NO DOUBT ABOUT IT, THOSE NEW ARMY SUPPLY CATALOGS HAVE NUMBERS THAT LOOK MIGHTY PECULIAR. YOU'LL SEE NUMBERS WITH CL'S, L'S, MI'S AND X'S. BUT ONCE YOU KNOW WHAT THE LETTERS AND NUMBERS MEAN, THEY MAKE REAL GOOD SENSE.



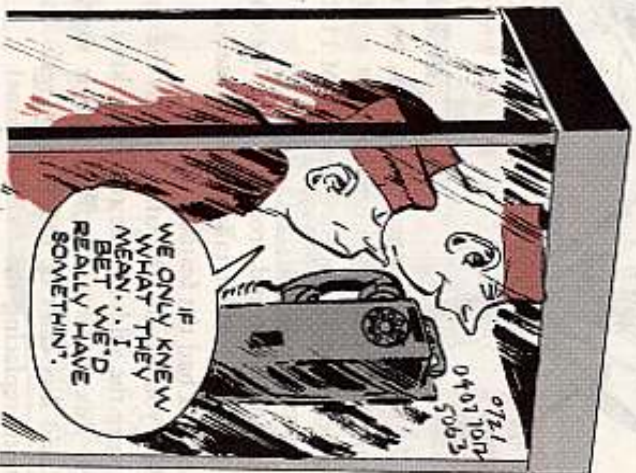
## DIG THOSE

# CRZY NUMBERS

### SC — SUPPLY CATALOG

You might see a catalog that has a number like this — SC 6675-93-CL-E29.

The SC stands for Supply Catalog. The 6675 is for the FSC group and class, and the 93 is for the agency responsible for the catalog.



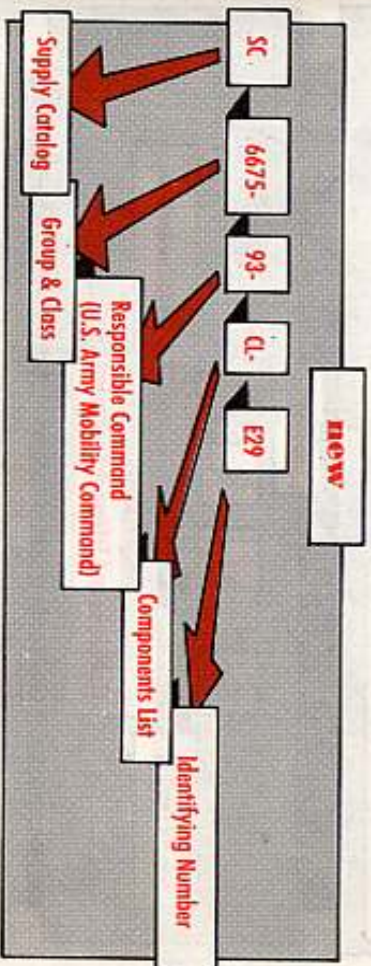
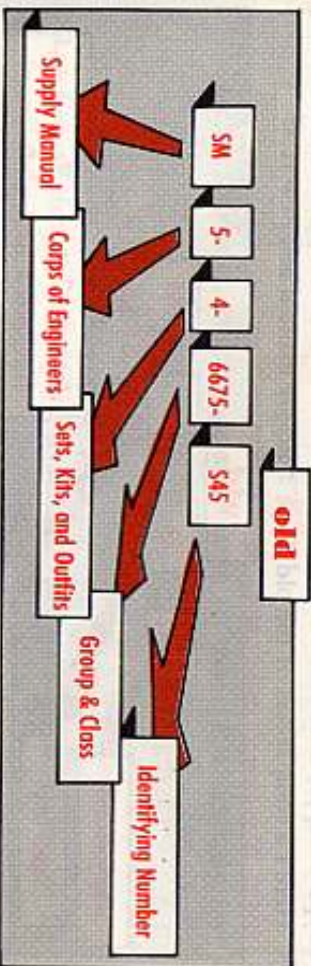
IF WE ONLY KNEW WHAT THEY MEAN... I BET WE'D REALLY HAVE SOMETHIN'!

0721  
0401 7017  
5065

9  
8  
7  
6  
5  
4  
3  
2  
1

### CL — COMPONENTS LIST

The CL means that the catalog is a sets, kits or outfits Components List. The E29 tells you there are more than one catalog for the group and class. Your CL catalogs replace the old type 4 supply manuals.



TO MAKE IT EASIER FOR YOU TO KNOW WHO HAS THE COMPILING RESPONSIBILITY FOR THE CL CATALOGS, HERE'S A LIST:

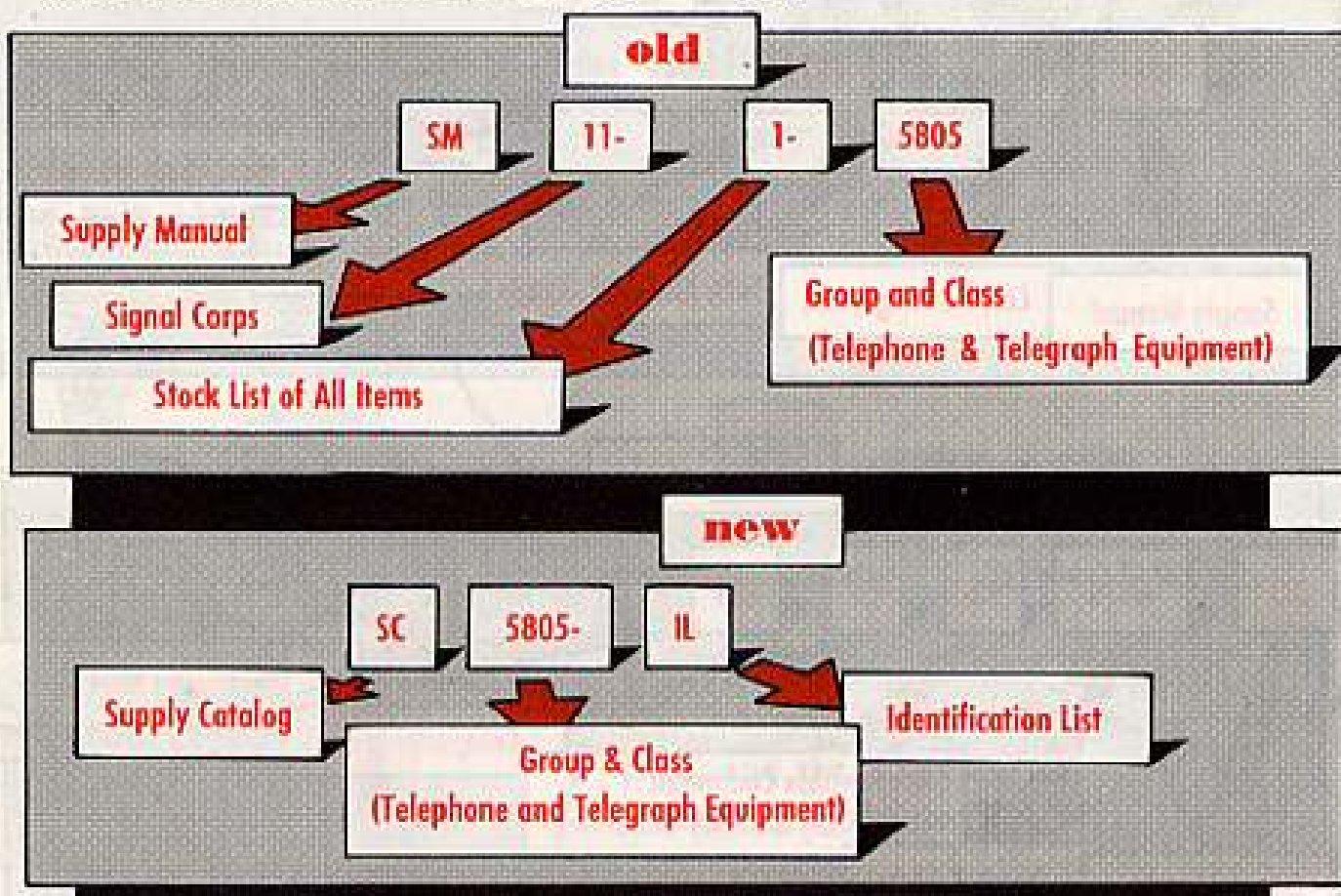
- 90— U.S. Army Supply and Maintenance Command
- 91— U.S. Army Electronics Command
- 92— U.S. Army Missile Command
- 93— U.S. Army Mobility Command
- 94— U.S. Army Munitions Command
- 95— U.S. Army Weapons Command
- 96— U.S. Army Test and Evaluation Command
- 8— The Surgeon General



## **IL** — IDENTIFICATION LIST

You have Identification Lists (IL) which take the place of your Stock List of All Items (Type 1 supply manuals) and/or Stock List of Current Issue Items (Type 5 supply manuals).

Here's a comparison of the old Type 1 supply manual and new IL's:

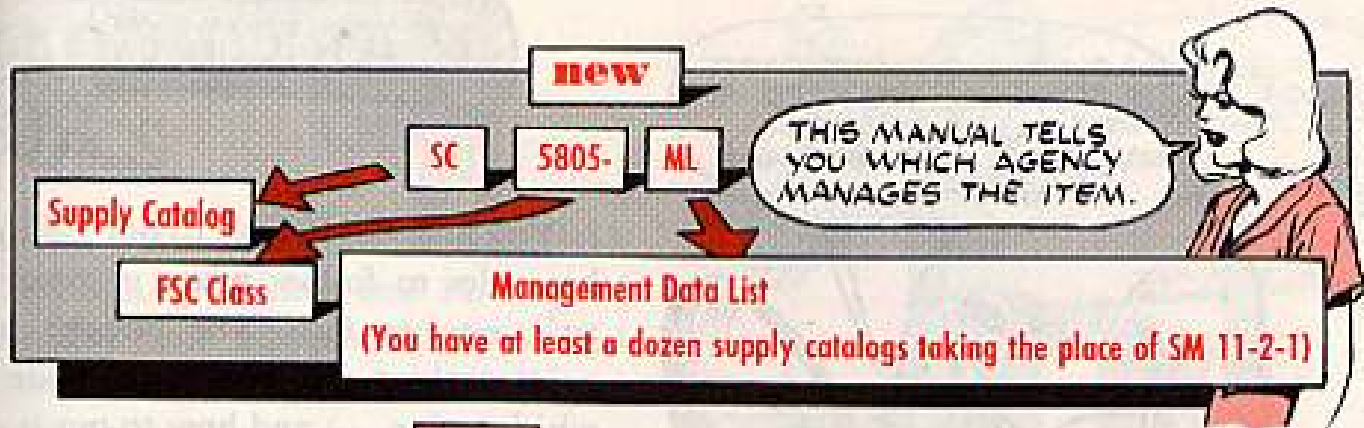


## **ML** — MANAGEMENT DATA LIST (PRICES)

When it comes to the price list, you'll find the Management Data List (ML) supply catalog takes the place of your type 2 supply manual. You may have one or several ML supply catalogs superseding the type 2 supply manual.

Here's an example:



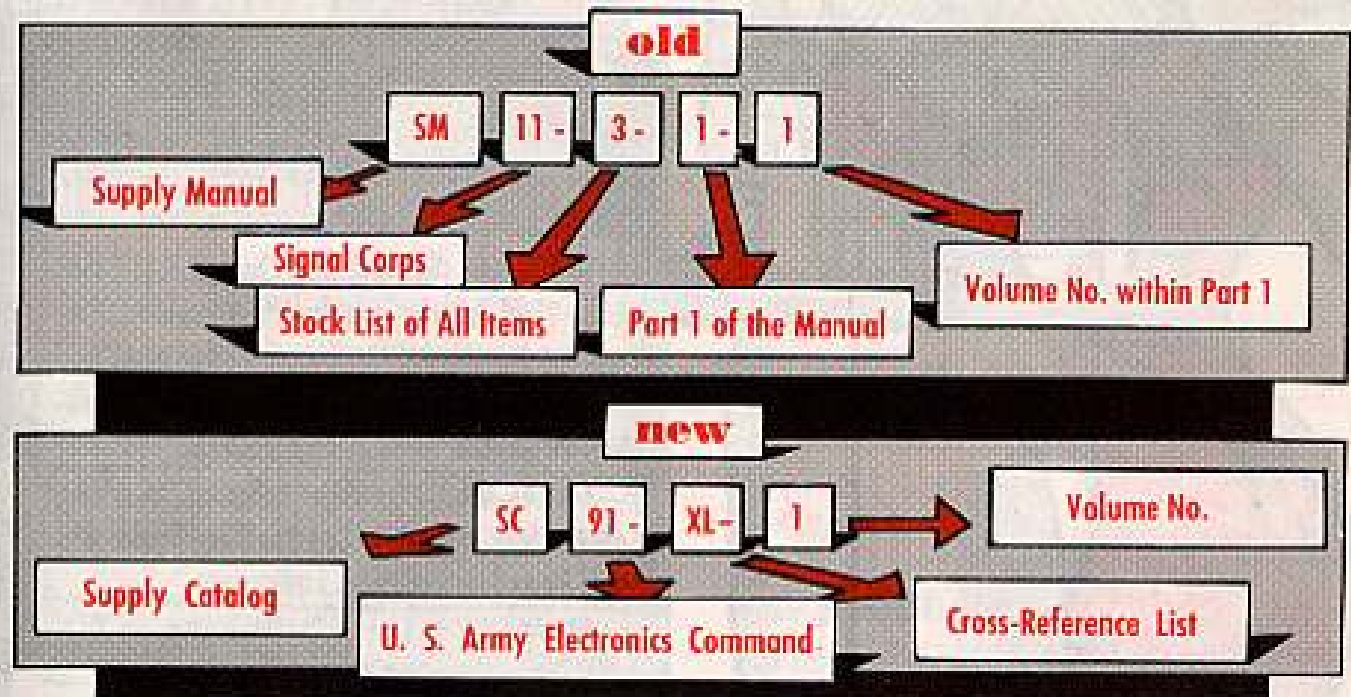


**XL** — CROSS-REFERENCE LIST

You'll also have Cross-Reference Lists.

**XL**—Cross-Reference List (Part Numbers identified with the applicable Federal Stock Numbers.)

This is the catalog that replaces the old Type 3 supply manual. Here's an example of the old Type 3 supply manual and the new XL's.



There's no sweat in telling at a glance the Army supply catalogs from the Department of Defense supply catalogs. The DA supply catalogs will have colored covers.

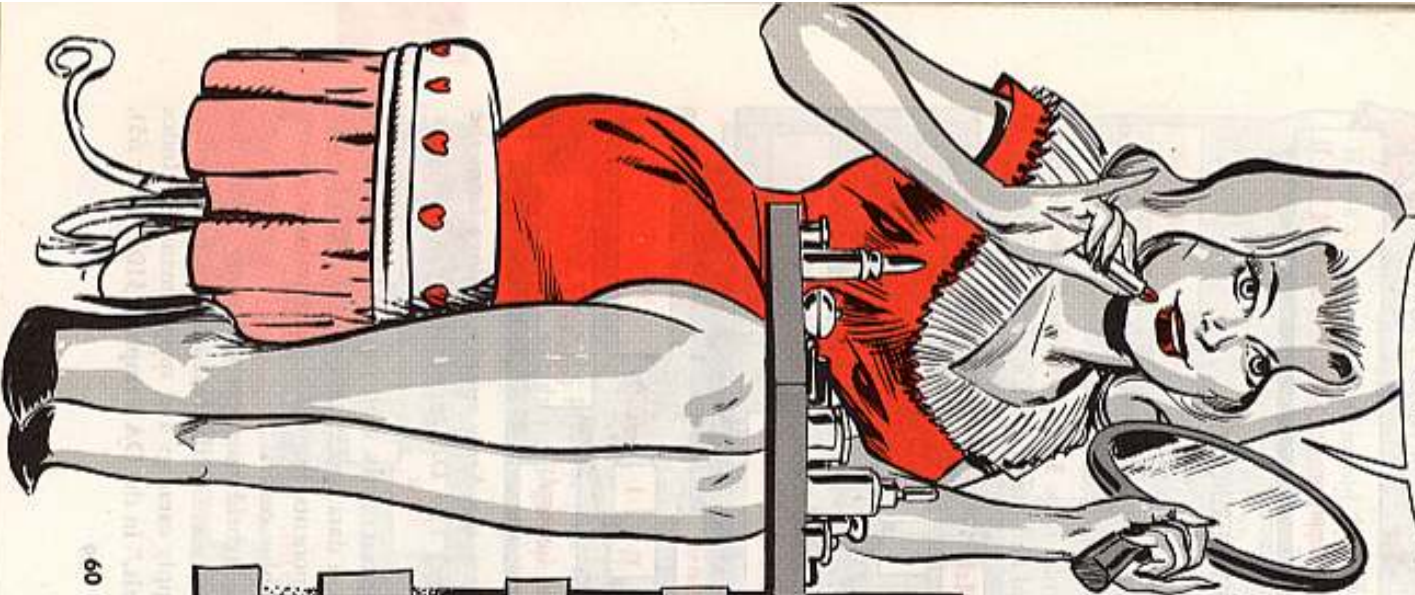
The Identification Lists will have green covers. And you can let your fingers do the walking if you need management data (price, unit of issue, etc.) because the ML's have yellow covers. The components list (CL's) have salmon covers. The Cross-Reference Lists (XL) have blue covers.

Don't get too upset if you see some hybrid numbers and some colors that aren't according to Hoyle. They were some of the first catalogs published.

You'll find the latest listing of supply catalogs and supply manuals "Index of Supply Catalogs and Supply Manuals," in the DA Pamphlet 310-6 (Mar 65).



PUTTING ON WAR PAINT IS EASY... ALL YOU NEED IS THE RULES FOR YOUR WAR PAINT. USE AR-746-5 (JUNE 64).



# MARKING AND PAINTING RULE BOOKS

You may not believe it, but your gal has rules to follow when it comes to painting her face. The powder and paint makers tell her what shade of which to use . . . and how to put it on. There're also rules to follow when it comes to painting and marking your piece of equipment. They may not be as tricky as the rules your gal has to follow, but you can bet that following the rules will pay off for you.

The basic rule book is AR 746-5 (Jun 64), "Marking and Packing of Supplies and Equipment, Color and Marking of Army Materiel." It prescribes the colors to be used for painting surfaces of Army materiel, and it sets a uniform system for the marking of equipment. Now that you know the basic, here're the pubs for rules to follow for specific types of equipment:

- AR 746-5
- TB 746-92-1
- TB 746-93-1 (Oct 64) "Color and Marking of Military Vehicles, Construction Equipment and Materials Handling Equipment."
- TB 746-93-4 (Jan 65) "Painting of Vessels."
- TB AVN 7 (Sep 63) and Ch 2, 3 and 4 "Painting and Marking of Army Aircraft," Includes Surveillance Drones
- TB 9-1300-246/1 (Apr 64) "Identification of Ammunition Employing New Color Coding Standard."
- TB 746-95-1 (Aug 64) "Color and Marking of Towed Artillery."
- TB 746-95-2 (Aug 64) "Color and Marking of Rocket Materiel."

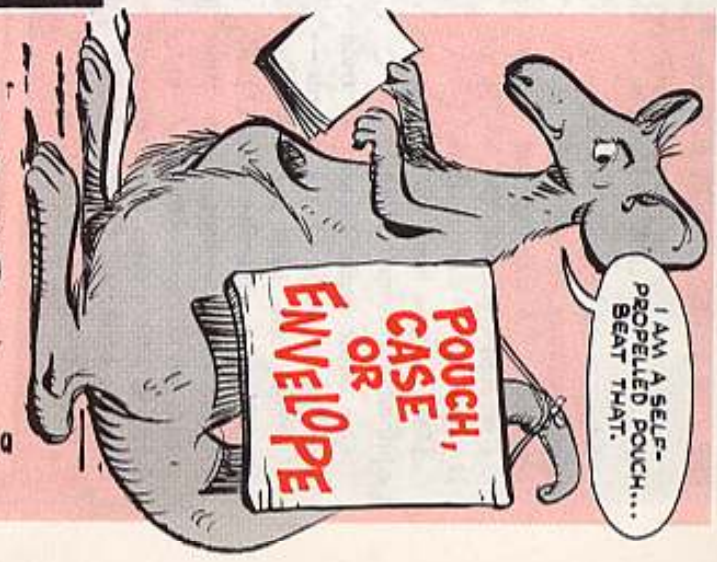
Keep your eyes peeled for the TB's on color and marking of the MIKE, HAWK, PERSHING and SERGEANT.

- TB 746-93-1
- TB 746-93-4
- TB 746-95-1
- It might make it a bit easier to do that painting job if you're acquainted with these pubs:
- TM 9-213 (Jul 62), and Change 1 (Feb 65), "Painting Instructions for Field Use."
- Be sure you get Change 1, because it has a section on details—how to apply them, how to remove them, etc.
- TM 5-618 (Oct 46), "Painting: Repairs and Utilities."
- SB 11-573(17 Mar 65), "Painting and Preservation Supplies Available for Field Use for Electronics Command Equipment."
- DOD Catalog C8000-1L-A (Apr 65), "Brushes, Paints, Sealers and Adhesives."

Stencils for marking your equipment are in your outfit's No. 1 Common and No. 2 Common Tool Kits. They come in sizes 1, 2, 3 and 4 inches high.

You can find the national symbol markings (stars) in sizes 6 up to 36 inches in SC 7690-ML (Oct 64).

One more thing — only guys with special know-how and equipment have the OK to print and mark up ammo.



Dear Half-Mast, Where can I get the FSN for the publication holder for our generator? Recently we ran short of these canvas pouches and can't find the FSN to reorder. Help!

SP 4 R. P.

Dear Specialist R. P., The publication holder you're looking for is called Case, Maintenance and Operational Manual, Cotton Duck, OD, mildew resistant, water repellent, w/one pocket 16-in high, 1-1/3-in deep, 9-3/7-in long, and one pocket 16-in high, 1-3/8-in deep, 9-in long. Overall it's 22 inches high, and 12-3/4 inches wide.

You find it listed in DOD Catalog C7510/30-1L-A (Dec 64) as FSN 7520-559-9618.

Half-Mast

## OPERATOR'S GUIDE

So you're sending your newest equipment operators 40 miles back of the boondocks for training and there're not enough copies of TM 38-750 or DA Pam 750-38 to go around.

How can you help 'em to keep the equipment records straight?

One outfit made it easier to train operators to shape up the records — like DA Form 2404 and DA Form 2408-1 — by extracting from TM 38-750 the necessary instructions. These were typed on cards about 6-1/2-in by 9-1/2-in and slipped into the equipment log book.

The instructions can be typed on the



cards so they'll face the form any time the log is opened at the particular record the operator needs to make an entry on.

It'll cut down a heap on that old back o' the boondocks disease, lacka-kno-how.

## NEW FSN TO PBO

*Dear Half-Mast,*

*Our property book officer says he needs a notice when we apply an MWO that changes the equipment FSN.*

*We submit a revised DA Form 2408-8, as required by para 4-12b(3) of TM 38-750, but the control copy goes to the commodity command as called for by para 4-12d(2). There is no copy to send to the PBO, so how do we handle it?*

**SFC N. M. P.**



Dear Sergeant N. M. P.,

You can dial the PBO and give him the new FSN.

But para 4-11b(2)(c) of TM 38-750 requires you to make and submit a new DA 2408-7 when the FSN of the equipment is changed as a result of modification or rebuild. So, the "control copy" of the DA 2408-7 may be forwarded to the PBO if the local commander approves.



# YOU WIN



Dear Half-Mast,

Settle an argument for me. My buddy says we're supposed to keep a DD Form 314, Table of Preventive Maintenance Schedules, for our typewriters but I say we don't.

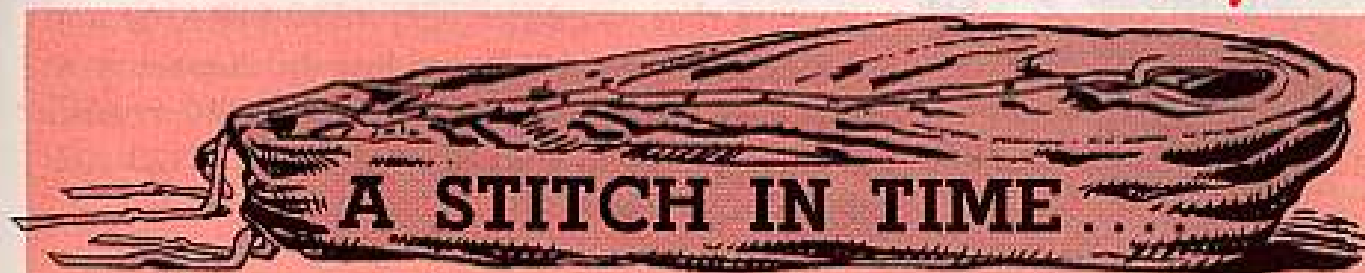
Who wins?

SFC R. L. P.

Dear Sergeant R. L. P.,

You win! There was a Change 1 (17 Mar 65) to TM 10-7400-201-10 (Apr 64), Operator's Manual, Office Machines, which deleted the words "weekly services." So, you don't have periodic preventive maintenance services and you don't have to keep the DD Form 314.

*Half-Mast*



... Will save you nine ... and it could also save the foot straps on your mountain or arctic sleeping bag.

When you roll up your sleeping bag you tie the foot straps together and that's where the trouble comes in. Some of those foot straps have been pulling loose at the seam.

To stop the trouble before it starts, ask your support people to bartack the straps. They'll overlap the stitches to reinforce those points of stress and strain.

They'll probably use Type 1A3, 30/3 thread, FSN 8310-187-3878, and they'll bartack those straps between 1/4-inch and 1/2-inch from the foot seam of the sleeping bag.

## SOME **HOT** NUMBERS

Well, maybe the numbers aren't so hot, but, if you want to keep the food hot in your insulated food container, then you'd better become acquainted with these little numbers.

They're for the replacement parts of your insulated food container, FSN 7330-238-2411:

Gasket, Insert FSN 7330-032-2721

Gasket, Outer (cover) FSN 7330-032-2722

Insert (three required) FSN 7330-243-3253

Cover, Insert FSN 7330-243-3254



You'll find these listed in DoD Catalog C7300-IL-A (Sep 64).

## ANOTHER HOT ONE



If you've been trying to find FSN's for the flame spreader, pipe reducer, and 3/8-in nipple used with your space heater burner assembly (FSN 4520-153-4602), here's the answer — There aren't any!

But if you need these parts . . . you're not left out in the cold. Requisition a vaporizing pot oil burner, FSN 4530-540-6167, and this assembly includes all the parts you'll need.

Be sure that you order FSN 4530-540-6167 and not FSN 4520-540-6167, which is the number most outfits have been using. Jot down this 4530 number and keep it close to your copy of TM 10-4520-202-25P.

## HOLD DOWN DAMAGE

Scads of equipment items and repair parts — like rubberized items and preservative compounds used for repair — deteriorate with age or exposure to high or low temperature or humidity. For the lowdown on maintenance of heat- or cold- or moisture-sensitive Engineer-type items, get your mitts on SB 5-60 (Dec 63) and its Change 1 (Mar 64). It also covers types of containers needed for storage to hold down the damage.



# Connie Rodd's

## BRIEFS



### Mark VIII Sight Kit

Here's hot news for you guys with the XM3 armament subsystem on your Huey (UH-1B). A mod kit's just come out to convert the Mark VIII from a panel-mounted to a roof-mounted sight. Get

your direct support pals to requisition Installation Kit, Sight Infinity Reflex, FSN 1270-073-9740, through channels from Anniston Army Depot, Alabama. This'll calm down those crazy instruments.

### Logbook Covers

The logbook cover designed for use with the logbook binder is now replaceable as a separate item, FSN 7510-763-5996, and may be requisitioned from Defense General Supply Center, Richmond, Va.

A protector for DA Form 2409 in the boondocks is Envelope transparent, visible thru both sides, side opening, 11-in

x 8½-in, FSN 7510-244-0356. It's listed on page 4.6 of DoD catalog C7510/30-IL-A (1 Dec 64).

Cancel that requisition for the protective cover, FSN 7510-292-9339, listed on page 64 of PS 144—unless you're a librarian. That's a binder for magazines.

### Order Enough

When you fill out those DA Forms 12-37, 12-38 and 12-39 for your outfit's tank, truck and trailer Pin-Point distribution of publications, be sure to order enough for all concerned. For example, you'll need one copy of the Operator's Manual, the Lube Order and ESC to go in each vehicle, plus copies for section,

squad and platoon leaders. You don't want to leave out anybody. And you'll check to see how many Maintenance and Parts Manuals your mechanics and the parts man need. Circular 310-38 sets 10 Oct 65 as the deadline for the forms for fastest service.

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



# LOOKS AIN'T EVERYTHING

DETERGENT OIL  
TURNS DARK AND  
DIRTY-LOOKING IN  
ONLY A FEW MILES,  
BUT IT'LL DO ITS JOB  
RIGHT UP TO THE  
NEXT SCHEDULED  
CHANGE.

SO, BASE YOUR OIL  
CHANGES ON

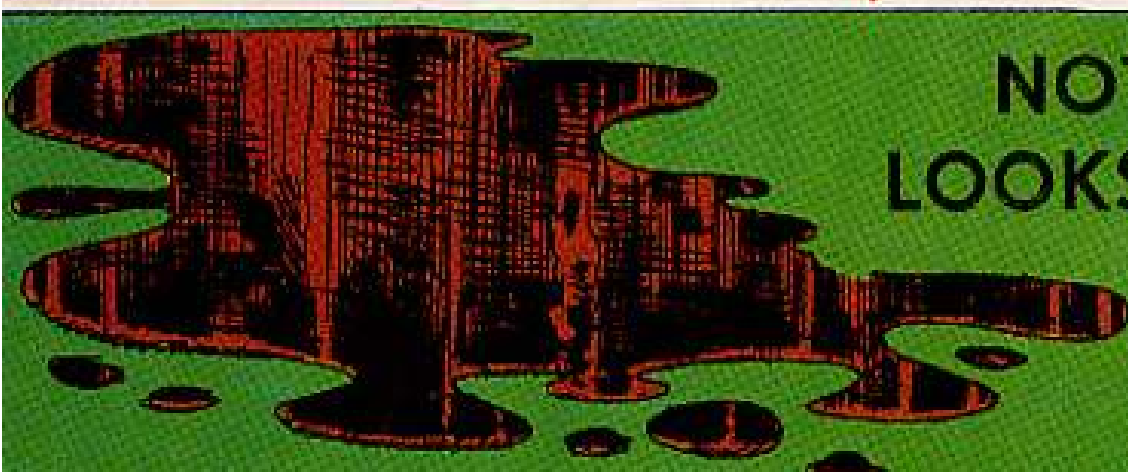
☆ MILEAGE

☆ TIME

☆ TEMPERATURE

☆ AND/OR CONTAMINATION

(**PER YOUR TM OR LO**)



NOT ON  
LOOKS ALONE