

Issue 138

PS

1964 Series

# THE PREVENTIVE MAINTENANCE MONTHLY

NOW ADD THIS—  
“...AND FURTHER MORE,  
SERGEANT HALF-MAST, WE  
NEED THE FSN AND  
AUTHORITY TO REQUISITION  
THE REPAIR KIT FOR  
RAFT, LIFE...”

WILL EISNER

SPECIAL FEATURE  
DOD CATALOGS  
SEE PAGE 2



# A "SPIRITED" TALE

You believe in ghosts?

Don't laugh.

Once upon a time—as they say in the fairy tales—there was this country with a small army. And while the army was small, it had the equipment—the latest and the best.

One day the balloon went up. The people in this country had confidence that wouldn't quit. So did the army's top brass. Everybody figured things would be under control in no time.

No sooner was the button pushed than things began to happen. No... to be more exact, they didn't happen.

Some missiles got off their launchers... most of them didn't, tho.

The tanks and trucks looked real sharp as they rolled out, but many of 'em wound up by the side of the road.

Men talked into radio transmitters, but about all that came out of most receivers was static.

The airfields buzzed with activity as crews tried—with little luck—to get aircraft into the wild blue.

Guns lugging small arms would have been better off if they had put blanks in their weapons... the noise might have scared off some of the enemy.

And as if things weren't had enough with the shooting, communicating and moving situation, very little chow made its way out of the field kitchens.

Like everybody thought, the fight didn't last long. But they picked the wrong winner, sure enough.

And to this day they're haunted by ghosts—ghosts of maintenance that was never performed.



# PS

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Issue No. 138 1964 Series  
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PS wants your ideas and comments, and is glad to answer your questions. Name and address are kept in confidence. Just write to:

Sgt. Jacky Mark  
PS Magazine,  
Fort Knox, Ky.  
40121





IF YOU'RE STILL TRYING TO KEEP YOUR C-SCORE SHEET ON YOUR DOD CATALOGS (FS 123) UP TO DATE, THEN HERE ARE SOME MORE SCORES TO ADD TO IT!



# YOUR DOD CATALOGS



In the first place, it'll tell you when to start using the catalog. And it tells you what publications the catalog supersedes.

THIS PUBLICATION IS EFFECTIVE 1 JANUARY 1964  
SUPERSEDEURE NOTICE

Maybe you've seen those new catalogs that have an II at the end of the number (C5210-II). That II stands for **Identification List**. You might just as well learn about it because you'll be seeing it more and more.

When there's too much info to put into one catalog, it gets broken down into volumes.

You can learn about these catalogs by reading the first few pages before you start using them.

For instance, on the first page you'll find the Table of Contents:

Introduction
Identification Data
Federal Stock Number Index

Now, before you jump to the Introduction, better read the print in between because it's important.

2

Now for the Introduction. You'll note that it says, "READ THE INTRODUCTION CAREFULLY TO OBTAIN THE MAXIMUM BENEFIT FROM THE CONTENTS OF THIS CATALOG."

The introduction gives you the word on the composition of the catalog and all the background you'll need to make working with the pub a snap.

INDEX NUMBER	FEDERAL STOCK NUMBER	IDENTIFICATION DATA DESCRIPTION	USING SERVICE	USING STATUS	DD FORM NO.

The introduction tells you that there's an Index Number and the only purpose of it is to help you find the item you're looking for.

(1) Index number. A sequencing number assigned to each item as listed in part I and cross referenced to the FSN in part II. THIS NUMBER SHOULD NOT BE UTILIZED FOR IDENTIFICATION PURPOSES.

It also says that if you have an FSN for an item and you want to get the nomenclature, then you turn to the Federal Stock Number Index. The FSN's are listed numerically so it's not hard to locate the number you want.

(2) Federal Stock Number. An 11 digit number assigned to each item of supply, arranged in groups of 4, 3, and 4 digits separated by hyphens; e.g., 5210-234-6749. The first group of four digits is the Federal Supply Classification code number. The last two groups of three and four digits comprise the Federal Item Identification number (FIIN) which is nonsignificant and serves only to identify the individual item.

FEDERAL STOCK NUMBER INDEX										
CLASSIFICATION	CLASSIFICATION	CLASSIFICATION	CLASSIFICATION	CLASSIFICATION	CLASSIFICATION	CLASSIFICATION	CLASSIFICATION	CLASSIFICATION	CLASSIFICATION	CLASSIFICATION
5210-234-6749	5210-234-6749	5210-234-6749	5210-234-6749	5210-234-6749	5210-234-6749	5210-234-6749	5210-234-6749	5210-234-6749	5210-234-6749	5210-234-6749

3

Then you have a description of the item. And you can tell which service(s) uses it.

(3) Description. This information contains, but is not restricted to, data selected from the Federal Item Identification (DD 146) cards. The approved item names appear in capital letters. Standardized and part names appear with only the first letter of each word capitalized. The description includes specifications and/or other reference numbers when applicable

GRADE, THICKNESS GAGE: English system; 0.040 in. thick, 3/16, 1/4 in. w/ w/o hole in end of blade; Western Electric Co. Inc. type no. 1124 #49

GRADE, THICKNESS GAGE: English system; 0.050 in. thick, 1/4 in. w/ w/o hole in end of blade; 2 sq. in. stepped to 0.040 in. thick 3/8 in. from end

(4) Using Service. The Military Service(s) recorded in the files of the Defense Logistics Services Center as a user of the item. Symbols used to identify services are:

- A-----Army
- AF-----Air Force
- AS-----All Services
- MC-----Marine Corps
- N-----Navy

USING SERVICE	ILLUST. PAGE NO.
A	8
A, AF	

When there's an illustration you'll find the page number in this column.

(6) Illustration page number. The illustration of a particular item is keyed to the page and index number. Illustrations deemed essential by all services are shown when available. Additional illustrations acquired will be included in future revisions. All applicable Reference Drawings are in numerical sequence and follow the Identification Data in Part I.

MORE



# Management Data List



Now what about those M.I. catalogs? Well, that M.I. tells you that it's a Management Data List.

**C5210-MI**  
Vol. 1

DEPARTMENT OF DEFENSE  
SERVICES SUPPLY CENTER

MANAGEMENT OF THE ARMY SUPPLY NUMBER

**FEDERAL SUPPLY CATALOG**  
Department of Defense/Section  
**MANAGEMENT DATA LIST**

FSC CLASS 5210 MEASURING TOOLS,  
CRAFTSMEN'S

You'll find the super-sadure notice and date on the front of the catalog. In fact, your M.I. is arranged very much like your I.L.

Defense General Supply Center  
Richmond, Va. 23212

GSA FPMR (41 CFR) 101-11.6 DATE 1 January 1984

Your M.I. gives you the information that was in your Pl or Price List such as FSN, Managing Activity, GSA Supply Source, Unit Price, Unit of Issue, Supply Status Codes, DOD Standardization Status Code, Supplementary Indexes (e.g., manufacturer's code cross-referenced to manufacturer's name), and Identification Data.

Column	Definition
Federal Stock Number	An 11 digit number assigned to each item of supply, arranged in groups of 4, 3, and 4 digits separated by hyphens e.g., 5210-234-6749. The first group of 4 digits is the Federal Supply Classification code number. The last two groups of 3 and 4 digits are the Federal Item Identification Number (FIIN) which is nonsignificant and serves only to identify the individual item.

The alpha codes shown herein are as established in Appendix A, Chapter B, of the Federal Manual for Supply Cataloging and are defined in paragraph 7b, this publication. For all items coded CX in this column the supply and procurement responsibility has been assigned to the GSA and the method of supply is shown in the GSA Supply Source Column.

Note: No entry in this column indicates that the item is to be obtained from other than GSA sources.

"Decentralized Item." Item will be procured locally. Military installations and activities which encounter difficulty in procuring these items may obtain the assistance of the nearest GSA Regional Office or may, if they desire, submit their requirement to that office for procurement actions. Overseas users are encouraged to utilize GSA facilities in obtaining GSA-S items from Comus sources. GSA Port Regions (Region 2, New York; Region 7, Dallas; Region 10, Auburn-Saville) are equipped to perform this service. Requisitions for these items should show 8 in the third position of the routing identifier in lieu of d. (See Appendix A)

Item available from GSA Stores Depot. Requisitions will be submitted to the appropriate GSA Regional Office. (See Appendix A)

Item available from Federal Supply Schedule. When within the maximum and minimum order limitation stated in the Schedule, orders will be placed with the contractor. When the requirement is less than minimum, the ordering activity may submit its requirement to the appropriate GSA Regional Office or may itself procure locally. When the requirement exceeds the maximum limitation, the order will be submitted to the local GSA Regional Office for processing. Consult the GSA "Check List and Guide for Federal Supply Schedules" and adhere thereto. Note especially information regarding delivery time for urgent requirements, and provision for overpack-  
ing. (See Appendix A)

You'll also find a translation of those Managing Activity Codes along with the addresses of the activity.

b. Managing Activity Alpha Codes are as follows:


Code	Activity and Address
BA	U. S. Army Ammunition Procurement and Supply Agency Attn: SMDP-QC Joliet, Illinois
BB	U. S. Army Ammunition Procurement and Supply Agency Attn: SMDP-QS Joliet, Illinois
BD	U. S. Army Materiel Command, Supply and Maintenance Directorate Red Stone Arsenal, Alabama
BE	U. S. Army Tank-Automotive Center Warren, Michigan
BO	Frankford Arsenal, U. S. Army Philadelphia, Pennsylvania
BT	U. S. Army Aviation and Surface Materiel Command St. Louis, Missouri
CB	Defense General Supply Center Richmond 12, Virginia
CD	U. S. Navy Ships Parts Control Center Mechanicsburg, Pennsylvania
CE	U. S. Navy Electronics Supply Office Great Lakes, Illinois
DM	Submarine and Reactor Parts Supply Office Mechanicsburg, Pennsylvania
JE	U. S. Navy Ordnance Supply Office Mechanicsburg, Pennsylvania
KE	Aviation Supply Office Philadelphia, Pennsylvania
KX	Defense Medical Supply Center Brooklyn 32, New York
PA	Naval Corps Supply Activity Philadelphia, Pennsylvania
SR	Middleton Air Materiel Area Orlando Air Force Base, Pennsylvania





# About Your CB'S and CN'S

You'll find catalog numbers that end in CB and CN, and they'll have a number under them.



**FEDERAL SUPPLY CATALOG** **C5330-ML-CB**  
 DEPARTMENT OF DEFENSE SECTION **NO. 3**

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**INDUSTRIAL SUPPLIES**

**FSC GROUP 53**

**CLASS 5330**

**PACKING AND GASKET MATERIALS**

---

**CHANGE BULLETIN NO. 3**

TO

**SUPPLY MANAGEMENT DATA AND PRICE LIST C5330-ML**

Department of the Army  
Department of the Navy  
Department of the Air Force  
Department of Defense

That CB stands for Change Bulletin which gives catalog data additions, deletions, or revisions. Could be a change to your IL or ML. A separate Change Bulletin is published for each list. You'll see a new CB every three months except when changes are included in a revised IL or ML. The CB's for IL's and ML's are numbered so you can tell the series to which it applies. (For example, 5210-IL-CB1 tells you that Change Bulletin No. 1 applies to catalog 5210-IL.)

When you get a CB it will have the changes that were in the last CB unless a revised catalog has come out in the meantime. For instance, CB No. 3 will have new information plus the information that was in CB No. 1 and CB No. 2.


**SUPERSEDURE NOTICE**

This CHANGE BULLETIN C5330-ML-CB No. 3 of 3 February 1984 supersedes CHANGE BULLETIN C5330-ML-CB No. 2 of 1 November 1983 and CHANGE NOTICE C5330-ML-CN No. 1 of 3 October 1983. Discard the superseded publications.

THE CHANGE NOTICE OR CN WORKS A LITTLE DIFFERENTLY. THESE COME OUT BETWEEN CB'S OR REVISIONS TO THE CATALOGS. THEY CONTAIN ESSENTIAL CATALOG DATA ADDITIONS, DELETIONS, OR REVISIONS.



A CN won't pick up the info that was in the previous CM, so if you have two CN's before a CB or revision to the catalog, then you keep both of them.



**FEDERAL SUPPLY CATALOG**  
 Department of Defense Section

**CHANGE NOTICE NO. 6**  
 TO  
**MANAGEMENT DATA LIST**

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**FSC CLASS 5305**

**SCREWS**

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**Defense Industrial Supply Center**  
**Philadelphia, Pa. 19111**

CHANGES TO C5305-ML ENTERED 1 JAN 1984 EFFECTIVE: 1 MAR TO 1 JUL 1984

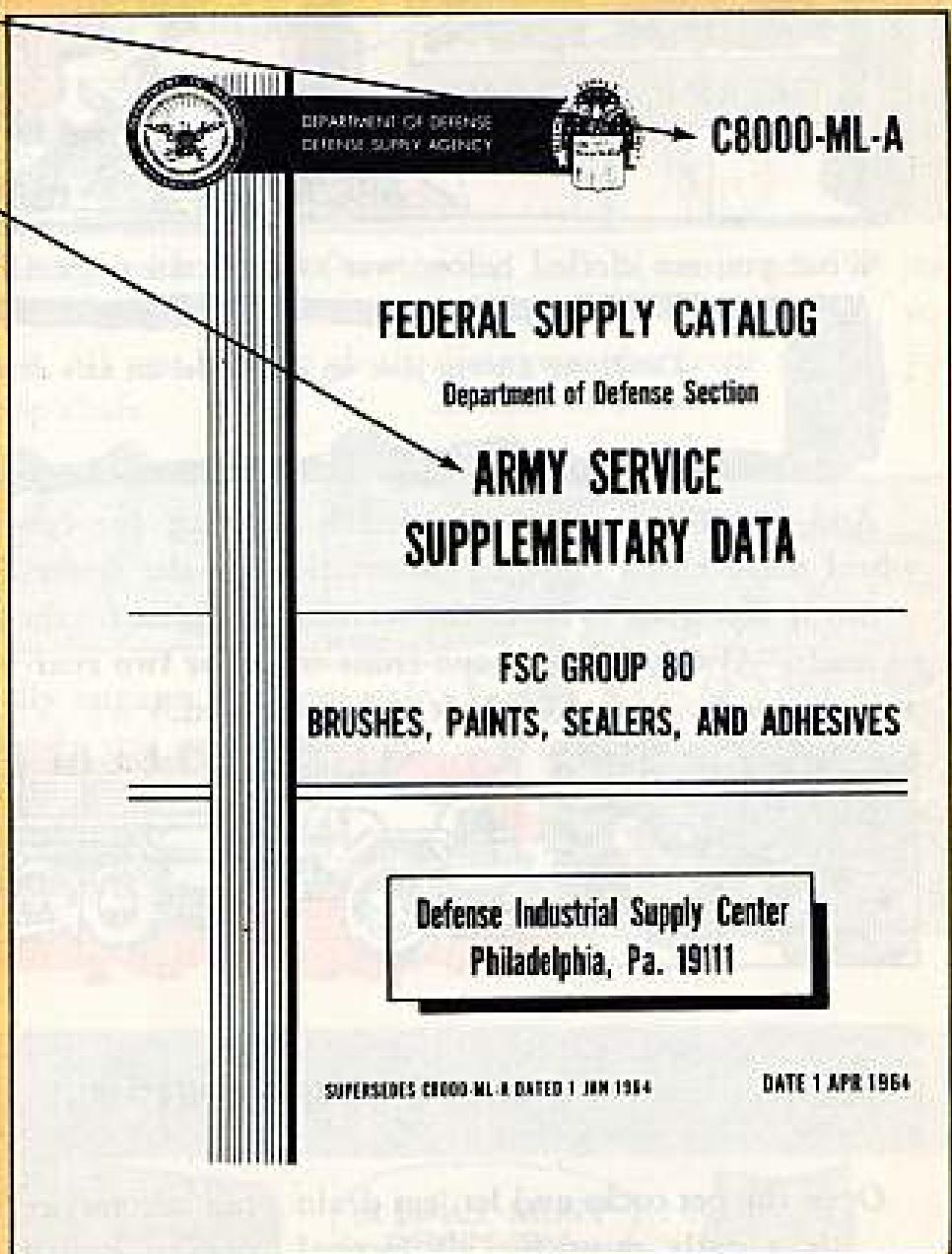
DEPARTMENT OF THE ARMY SUPPLY MANUAL SM 9-C5305-ML-CNA

# Tailored Catalogs Too

A tailored catalog (C8000-ML-A is an example) is one that is published for one service. You'll have the letter A for Army, N for Navy, AF for Air Force, and MC for Marine Corps.

And you can have an IL or ML tailored catalog. When you see C8000-ML-A you'll know the A is for Army.

NOW DON'T BE THROWING AWAY YOUR OLD CATALOGS (SL'S [STOCK LIST], PL'S [PRICE LIST], ETC.) UNTIL YOU SEE THEY HAVE BEEN SUPERSEDED BY AN IL OR ML.



END



## GROUND MOBILITY



# BELIEVE IT

ANYTIME YOU GET OUT AND GET UNDER BE SURE YOU'VE GOT YOUR TRUCK SAFELY BLOCKED UP... IN ADDITION TO YOUR JACK.



What you see circled below was taken from page 428 of TM 9-8022.

**Caution:** Always jack up one wheel on axle driven by propeller shaft to be removed.

And the caution has just as much meaning for other trucks with a front wheel drive that's engaged automatically—the 5-ton job, for instance.

But if you want to make the warning complete for the 6x6's, the caution ought to read: "Always jack up one front wheel or two rear wheels on same side on axle driven by propeller shaft to be removed."



## 5-TON 6744-SERIES TRUCKS MUST... DRAIN 'EM

Open the pet cocks and let 'em drain... is a daily must for all tactical wheeled vehicles that mount air reservoirs.

As every experienced truck driver knows, water and condensation must be removed from the air brake reservoir tanks at the end of every day's run.

Just about all vehicles that have air reservoirs cover this in their TM's Operator's Daily PM Services. The G742 and G749-series 2½-ton and G792-series 10-ton truck TM's spell it out in plain words; and they're not foolin'.

You see, in freezing weather, water

can become ice in the brake lines causing no brakes when you need them most. Let too much water collect in the reservoirs and it can also kill your brakes.

This holds true for all trucks... including the G744-series 5-ton jobs.

You won't find this important daily after-operation PM service listed in the daily PM table of TM 9-2320-211-10, so jot it down on your brain. When you drain your air tanks you'll be ahead in the safety game.

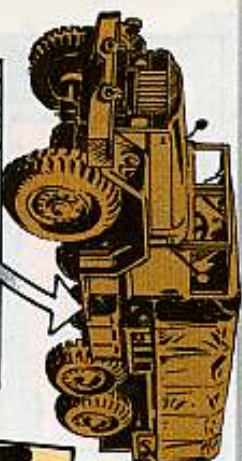
Pass the word along to other 5-ton truck drivers.

## DAILY TOO

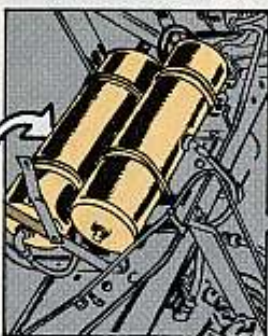
It's a different situation with the 4x4's—the ½- and ¾-ton trucks. If you manually engage the front axle on these vehicles, but don't move them, you have no sweat. That is, all you have to do is disengage the front axle if you want to take off a prop shaft.



And if you manually engage the front axle and then drive around, you want to either disengage the front axle or raise any one wheel before removing a prop shaft. This deal gets rid of any windup that has built up in the prop shaft.



A DAILY MUST-DRAIN 'EM.



AIR BRAKE RESERVOIR TANK PETCOCK





# DIG THOSE FIVE-TONNERS



You now need some new books if you're working around the 5-ton workhorses.

Try TM 9-2320-211-10 (Mar 63). It supersedes part of TM 9-8028 and lists the G744-series 5-ton trucks' OEM.

Then you need TM 9-2320-211-20 (Mar 63) which supersedes the remaining section of TM 9-8028.

TM 9-2320-211-20P (Mar 63) covers the cargo, dump, truck-tractor and wreckers, plus the chassis M39, M40, M40C, M61, M63, M63C, M139, M139C, M139D and M139F. It supersedes the -20P dated 14 Jan 59.



## KEEP 'EM BUTTONED

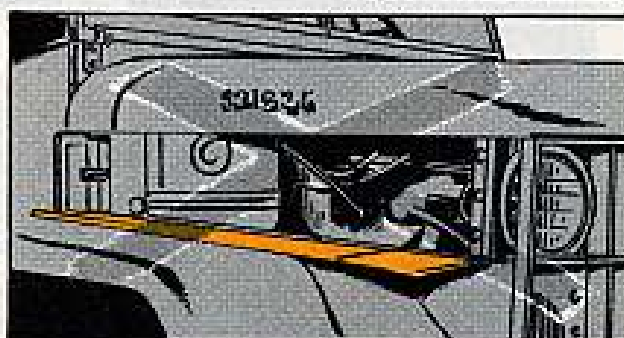
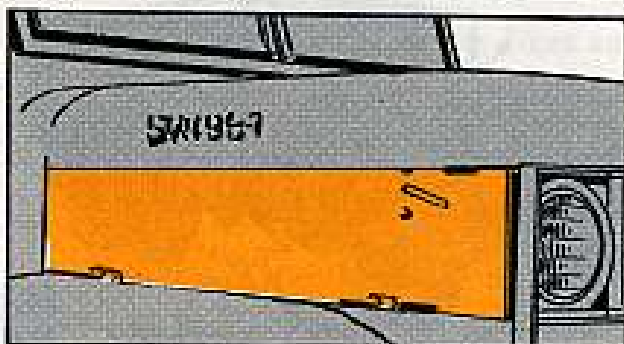
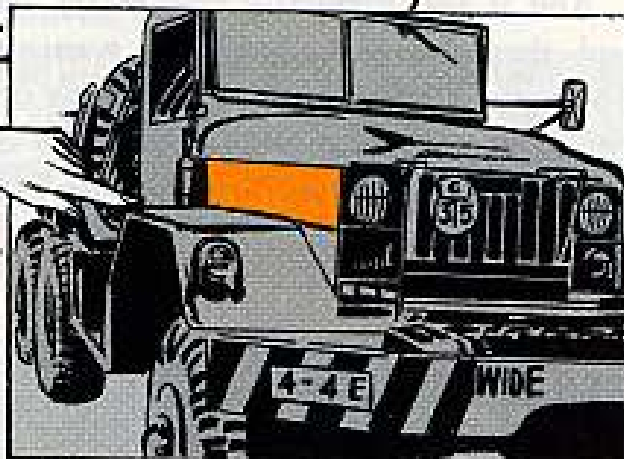
...FOR PROPER COOLING OF ENGINE.

Opening the windshield and side vents may cool you off when you're rolling with an M52-M172 rig. But the same principle won't work for the tractor engine.

If you open the side panels, the air blast from the fan won't be channeled back and around the rear part of the engine. And you know what a revolting development that can lead to—an overheated engine for real.

'Course if the engine overheats with the side panels closed, check operator's pub, TM 9-2320-211-10 (11 Mar 63). The troubleshooting table will clue you on other causes of engine overheating.

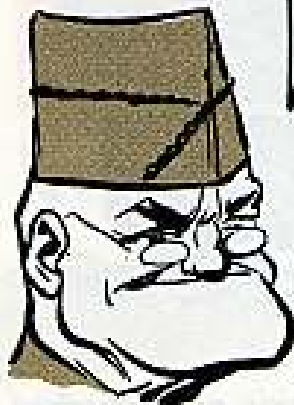
So, keep the side panels buttoned when you're rolling . . . that goes for all types of trucks, from 2½-tonners on up.





# NO HOSE NEEDED

RADIATOR HOSE FOR  
G742 2½-TON VEHICLES  
IS FSN 4720-752-1971.



FSN 2930-  
322-7342  
IS FOR G792  
SERIES 10-  
TON TRUCKS.

TM 9-2300-223-20P (Nov 62), the consolidated stockage list of repair parts, can put the hose to you if you're not careful. The last item on page 107 is listed as FSN 2930-322-7342, HOSE: radiator inlet for G742 2½-ton vehicles. Actually, this is not a radiator hose and won't work on G742 vehicles. Get radiator hose FSN 4720-752-1971. The hose listed as FSN 2930-322-7342 is actually for the G792-series 10-ton trucks.

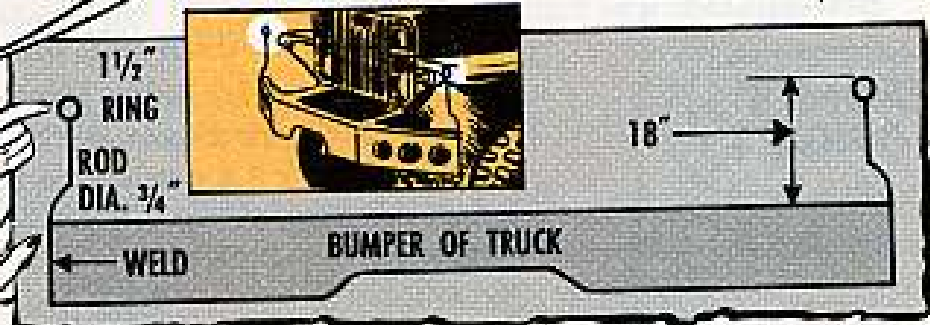
## GUIDE ON THIS

Dear Editor,

As a matter of safety, we weld rods to the bumpers of all trucks 2½-ton or larger so our rookie drivers can use them as clearance guides. The rods are attached to the extreme ends (left and right) of the front bumper like in this picture.

CLEARANCE GUIDES FOR  
ROOKIE DRIVERS.

M5gt Ivan L. Kaukl  
Fort Wolters, Texas



(Ed Note—Good safety idea, Sarge, and all you need is for your CO to back you up. Under AR 385-10 (Apr 63) Section 4a, he has all the authority he needs to use the safety device or any other method needed to prevent accidents. Section 4a reads:

"Commanders at every echelon are responsible for conducting a continuing, vigorous effort toward the prevention of accidents in all operations and activities. Commanders will insure that adequate provisions for safe practices and safe physical standards are incorporated in all directives, standing operating procedures and training doctrine."

'Course, you have to take them off and spot paint if you ever turn in your trucks or transfer them to another unit. It might be simpler to work out a clamp deal that you could make out of rod and scrap metal. You could use it during training and then, after training, the clamp could be taken off and stored for future use.)



# HYDRA-MATIC



HARMONY



Ever hear of para 18 in AR 310-1?

It's the bit on conflict among publications, and it goes like this, "In case of conflict among provisions of publications, those publications of a later date govern."

This is the key that sets the tune on the how the transmission oil is checked in the 2½-ton G749-series Hydra-Matic trucks.

The Hydra-Matic oil-level check put out way back in 1955 and still shown in TM 9-8024, is not to be used. The vehicle's LO 9-2320-210-12 ( Dec 62) says so.

Like the AR says, the later dated pub governs.

If you don't have the new LO or you can't read the fine print on the one you have . . .

**DON'T FORGET!**



## CHECK LIKE THIS—

1. First, lock the vehicle's parking brakes.
2. Then, shift the transmission selector lever to the N (neutral) position and lock it in place with the neutral safety lock.
3. Start the engine and let it idle at about 650 RPM for 3 to 5 minutes.

## READ IT—

1. If the truck's not been run before you started it, then the transmission oil level should check out at the **COLD** mark on the dipstick.

or—

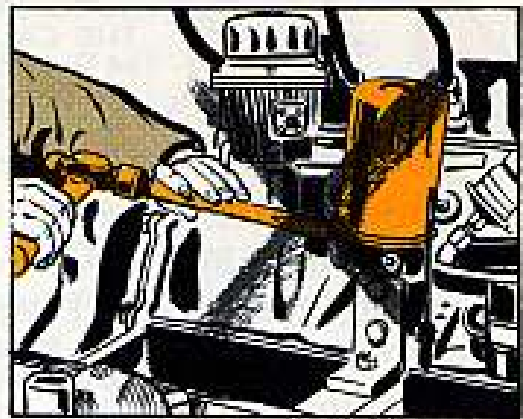
2. When the truck has just come off a run and the oil is at operating temperature, the level should be at the **HOT FULL** mark.

While we're on the transmission shift lever topic, do all your Hydra-Matic trucks have the neutral safety lock mounted on the shift-control tower? That lock was put there by MWO Ord G749-W34 way back in 1956 and should be on all the G749-series vehicles because it's a safety deal.



# M151 OIL FILTER

WRAP A PIECE OF WEB BELT AROUND FILTER FOR A BETTER GRIP.



Every six months or 3,000 miles, whichever comes first, you M151 ¼-ton mechanics may have to change the engine oil filter.

If you can't unscrew it by hand, wrap a piece of web belt around the filter. This'll give you a better grip and make the filter easier to get out.

The filter adapter could get broken

if you use a hammer and chisel. TM 9-2320-218-20 (Apr 63) has the dope on removing and replacing the oil filter.

After you get the old filter off, see if there's any sludge or gook in the filter well. If so, take off the filter adapter and wash it before you screw in the new filter. Also, flush engine oil system if there is evidence of contamination.

## A GOOD FSN

Can you find the M151 ¼-ton truck's oil filter in your copy of TM 9-2300-223-20P?

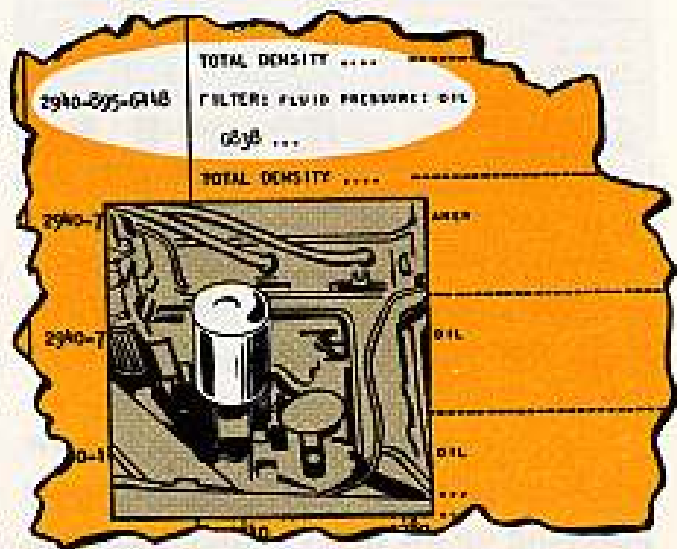
The filter is now in your Consolidated Authorized Organizational Stockage List manual. It's on page 47 of the December 1963 issue and is listed as FILTER: fluid pressure, oil, under FSN 2940-895-6448.

The FSN is a good and lucky number.

As a matter of fact, this 2940-895-6448 number is even luckier than FSN 2940-678-1845 given in TM 9-2320-218-20P (May 60).

Hereafter, when you need a new oil filter for your M151 use this new FSN

on your 1546; your support will be able to get it a lot faster from the depot with this new number.



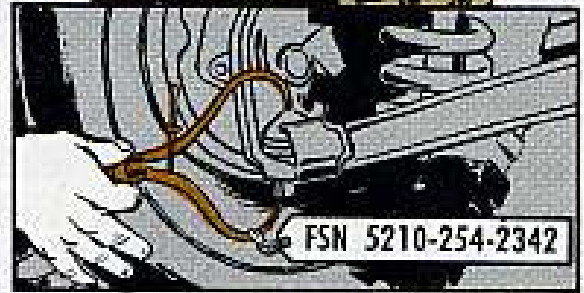




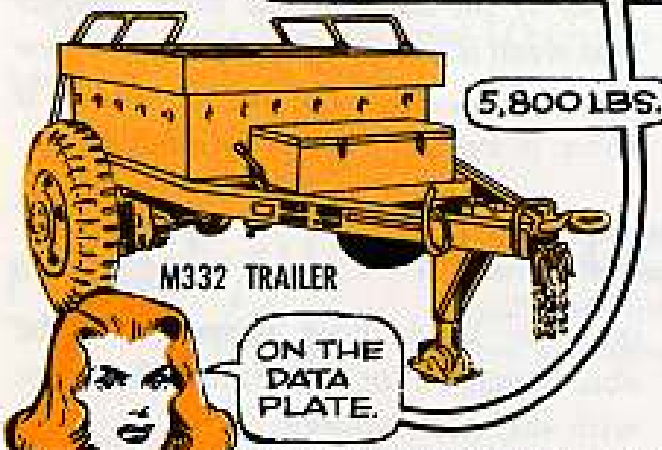
# BALL CHECKER HERE

YOU'RE AUTHORIZED  
THE CALIPERS BY  
TM 9-2320-218-20P  
(31 DEC 63).

If you ¼-ton M151 mechs have been looking for the caliper shown on page 194 of TM 9-2320-218-20 (11 Apr 63), your search is at an end. To check the ball-joint free-play: Caliper, outside, 6-in, lock type, FSN 5210-254-2342, has been added to truck tool kit "B", FSN 4910-627-7049. You're authorized the calipers by TM 9-2320-218-20P (31 Dec 63).



# ENOUGH IS ENOUGH



Regardless of what you've been told, the correct total cross country and highway payload is 5,800 pounds. If anyone asks who says so, tell 'em the trailer data plates say so. You can show 'em the data plate on the trailer or the one that's on page 3 of TM 9-2330-231-14P (Aug 63). The weight of 7,000 or 8,000 pounds that some ammo toters are using is too much.

The 9:00x20 tires that must cushion and carry the 5,800-lb ammo load should be pumped up just right.

Not too tight, not too loose.

They should get 40 PSI on highways, 30 PSI on cross country runs and 25 PSI for mud, sand and snow traveling. Nix on pressures that run as high as 70 PSI . . . too hard.

To do your trailer justice, stick to the 40-30-25 tire pressures and 5,800-lb load rating.

M332 TRAILER FEDERAL STOCK NO. 2300-200-083 MANUFACTURED BY THE MFG. CO. (MILWAUKEE, WISCONSIN)		WEIGHT AND DIMENSION DATA 	
PAYLOAD 5,800 LBS. (MAXIMUM) 3,000 LBS. (HIGHWAY) 2,500 LBS. (CROSS-COUNTRY) 2,000 LBS. (MUD, SAND, SNOW)		WEIGHTS (LBS.) (MAXIMUM) (MINIMUM) PAYLOAD 5,800 3,000 9:00 WHEELS 2,500 2,000 10:00 WHEELS 2,500 2,000 TOTAL 5,800 5,000	
DELIVERY DATE <input type="text"/>	INSPECTED BY <input type="text"/>	APPROVED (NAME - SIGNATURE) <input type="text"/>	

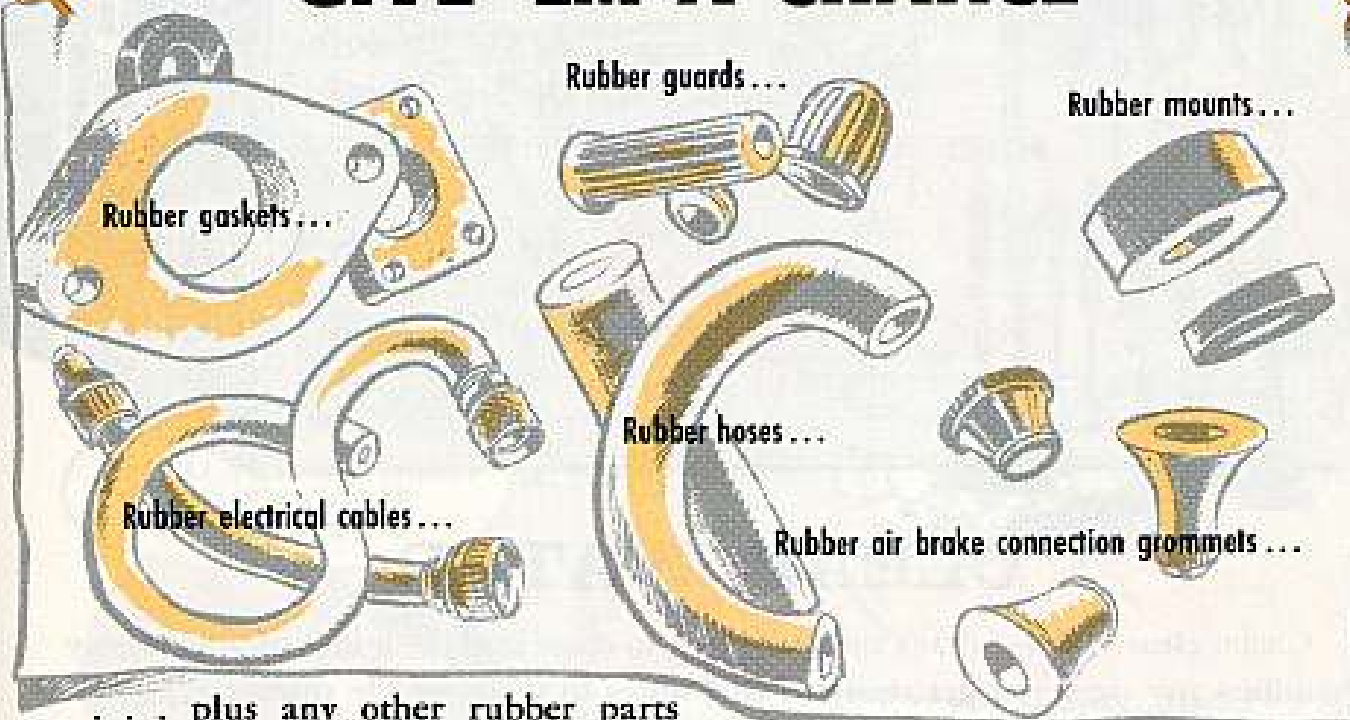
Be just before you're generous . . . This is especially true when dealing with your M332 1½-ton ammunition trailer. Some M332 trailer users don't know when to stop when loading or when pumping up the tires . . . they overdo it.



# TRAILER TIRE PRESSURE

This goes for everybody who has an M101 or M101A1  $\frac{3}{4}$ -ton cargo trailer or an M116 or M116A1  $\frac{3}{4}$ -ton chassis trailer—there's been a whumping big change in the correct tire pressure on these trailers and not everybody has got the word. TM 9-2330-202-14P (Jan 61) called for a 40-PSI but the new (Aug 62) edition says the pressure should be 25-PSI for highway and 15-PSI for cross-country.

## GIVE 'EM A CHANCE



... plus any other rubber parts found on a tank, truck or trailer should get a little attention every now and then.

Rubber or rubber coated parts get hard, stiff and then crack or soften and rot when left to the mercy of paint, grease, oils, sweaty hands and the weather.

Given a chance, or even half-a-chance, your rubber parts can last a lifetime. All they need is a little care, say about once a year on a routine basis.

To start your rubber parts off to a more serviceable life, first wash 'em with plain soap and warm water. Rinse

the rubber well and then let it dry like TM 9-208-1 says.

Then coat the rubber with this preservative: Preservative, coating, rubber, FSN 8030-656-1032 (1-gal can). This preservative is for protecting natural or synthetic rubber or rubber coated parts; there should be a gallon of the stuff in every maintenance shop.

The preservative coating is listed in C8000-SL and SB 38-100; it's usually an off-the-shelf country store item.

You can see the full scoop on protecting rubber parts in TB 9-248 dated 20 Mar 61.



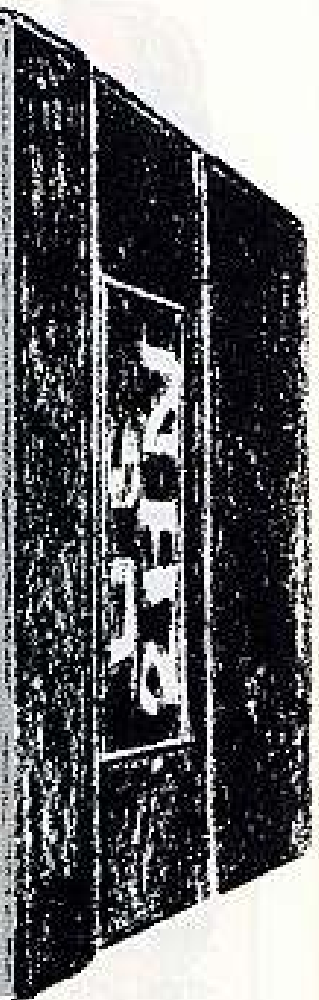
S-11-63

STAMP  
DON'T  
PAINT

Some of your dry-charged vehicle batteries come with an instruction tag hooked to one of the filler plugs that says to paint the service date on your battery.

That's no good. You've got to date-stamp your battery like it says in para 34d of TM 9-6140-200-15. Use the die stamps in your No. 2 Common Tool Kit. (See Change 1 to SM 9-4-4910-A86.) They're Metal Die Sets, Numerical, FSN 5110-289-0003, and Alphabet, FSN 5110-289-0007.

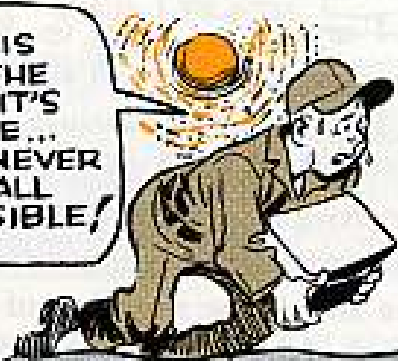
With a battery dated right, you're in the swing of things when it comes to checking out your vehicle under ESC.



### CLEAR WATER

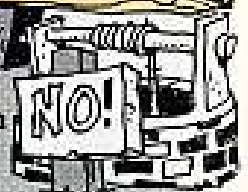
Clean, clear water—that's the first thing to come into the minds of you battery handlers any time you get ready to add water to your vehicle storage type batteries . . . give 'em the best.

THIS IS THE WAY IT'S DONE... WHENEVER AT ALL POSSIBLE!



BEST: DISTILLED WATER

IF YOU GOTTA: SECOND BEST: TAP WATER - BUT LET THE FAUCET RUN A WHILE BEFORE Y'FILL UP



Stay away from "well" water because it usually contains lots of iron and other minerals . . . iron'll cause your batteries to discharge.

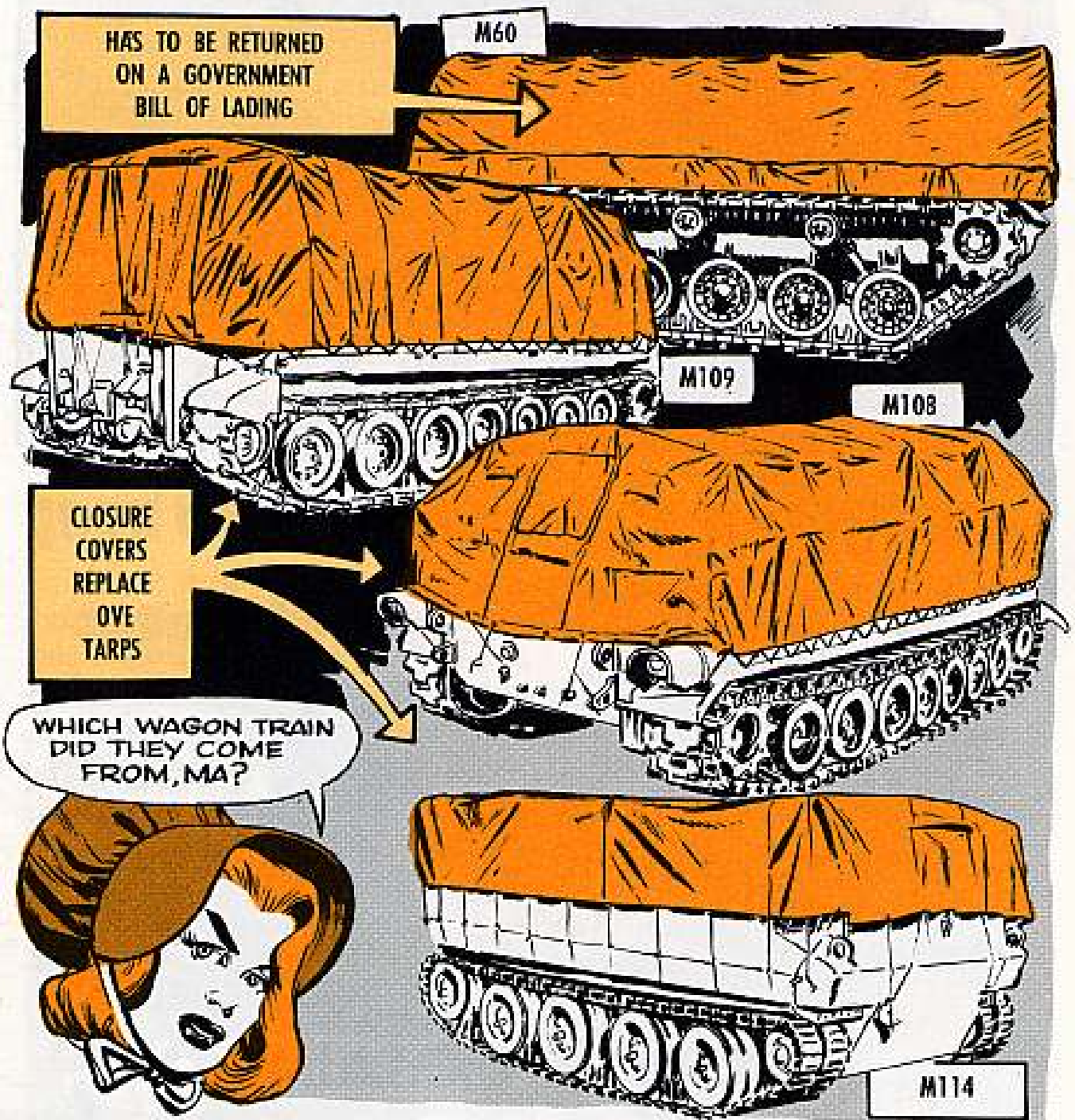
Stay away from use of "swamp water." The decayed material in it changes to acetic acid when mixed with sulphuric acid and raises cain with the bonding stuff that holds the grids and plates.

But, any water is better'n none, when you're in a pinch.

NO!!



# COVERED WAGON RETURN



The item you saw in PS 126, Page 41, won't apply to the protective closure kits on your freshly delivered M60-series tanks, the M108 and M109 SPH's, and M114-series vehicles.

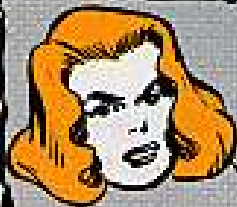
On your M60 tanks the kits hafta be returned on a government bill of lading. If transportation funds are not available, wire the U.S. Army Mobility Command, AMCPM-M60, 38111 Van

Dyke Ave., Warren, Mich., 48090 for the funding directive. See your support unit about this.

On the M108, M109 and M114-series vehicles, the closure covers replace the OVE tarps.

On all other vehicles, the protective closures are expendable, and you can use 'em however you want.



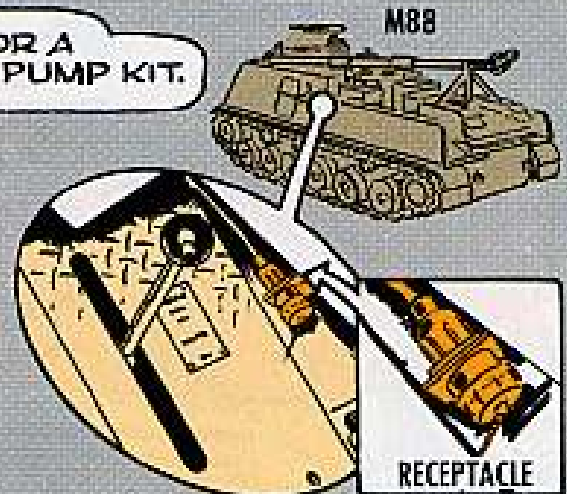


## WONDER NO MORE

THE RECEPTACLE IS FOR A DEEP FORDING BILGE PUMP KIT.

Been wondering what you use this receptacle on your M88 VTR for? The TM's don't say, you know.

It's for a deep fording bilge pump kit. The power line plugs into the receptacle and it goes down thru the hole in the deck plate to the bilge pump below.

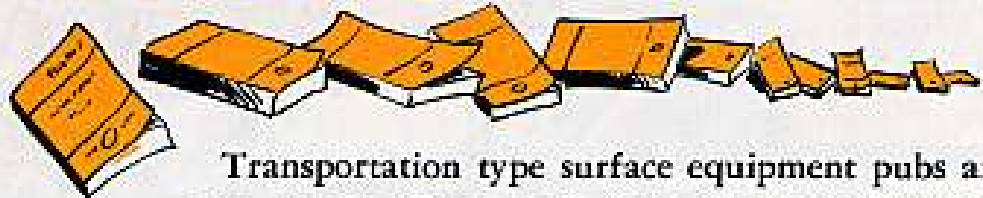


## DIRECT MAIL FOR MARINE AND RAIL

FINALLY.



OBOY!



Transportation type surface equipment pubs are now on the direct mail from St. Louis list. The authority is DA Form 12-33: "Requirements for Initial Distribution of Operation and Maintenance Publications Pertinent to Rail, Marine and Amphibious Equipment, and for Supply Data Published in the 55-Series of Supply Bulletins and Supply Manuals." Instructions are on the back of the form.

## TIE-DOWN CHAIN

Your cargo tie-down chain assembly, FSN 1670-545-9062, won't do much holding without the chain. To get just the chain, you order Proof coil chain, 7/16-in, 8-7/8 links per foot, galvanized, FSN 4010-165-6057, and ask for the number of feet needed. (It may also be called common coil or standard commercial chain.) It's available from Defense Industrial Supply Center, and it's listed in Federal Supply Catalog C4000-SL, Vol 1B, Table 30, item 750.



# M113 PC MONEY SAVER



So you'd like to save a buck on maintaining your M113 PC.

Good idea. Try this—

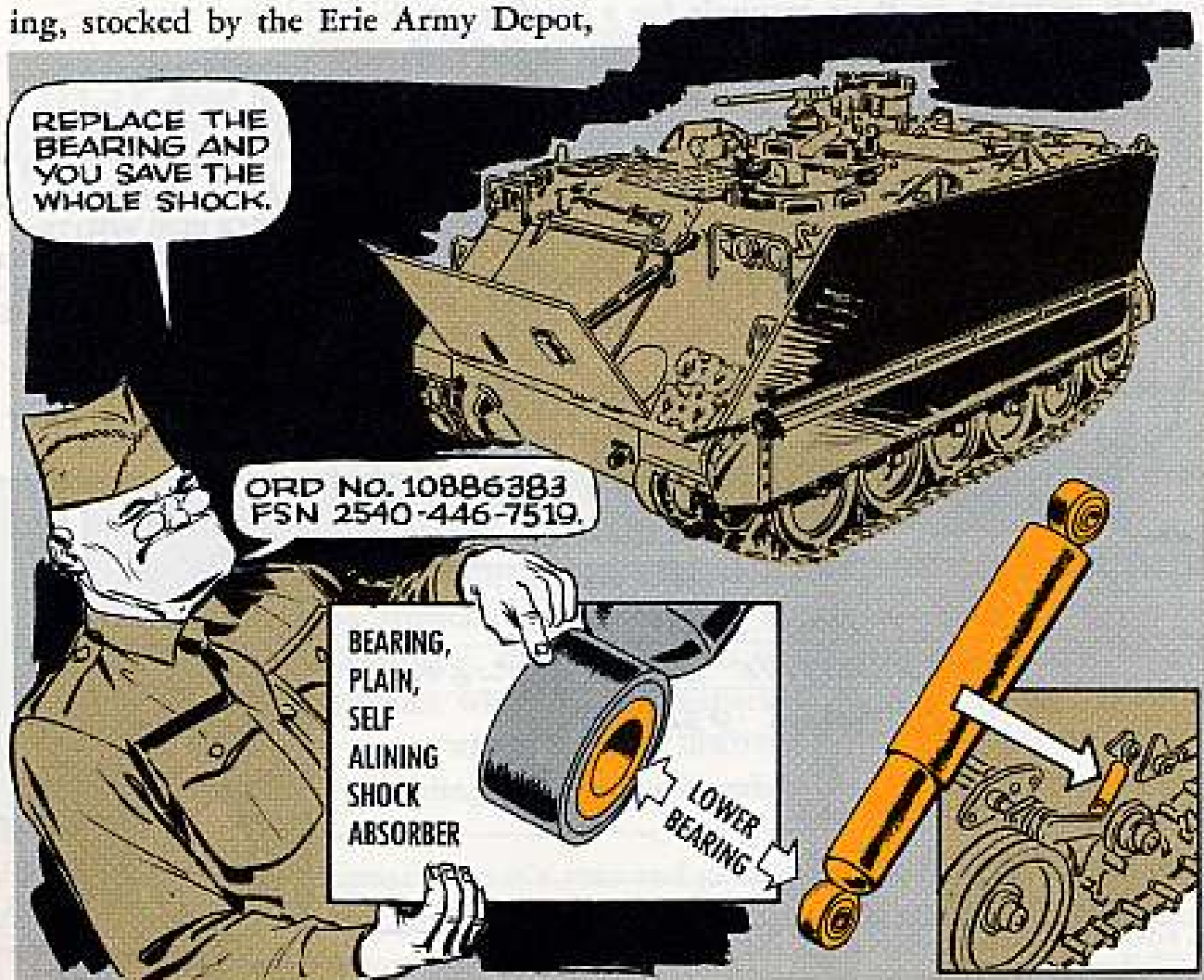
Like you know, your shock absorber bearings give out after absorbing around 2,000 miles worth of shocks, and new shock absorbers cost about \$25 per each.

Well, it is nearly always the lower bearing that conks out and this bearing, stocked by the Erie Army Depot,

runs under 5 bucks. With it replaced, the entire shock can be saved.

It is Bearing, Plain, Self Alining Shock Absorber (Ord No. 10886383) FSN 2540-446-7519.

Your direct support can repair your shocks with this bearing. In fact, they can set up a DX for shocks so you can get your M113's repaired quick as well as cheap . . . so pass the word.







HOT START  
WRITE-UPS...

# SAVE THE



When a Mohawk (OV-1), Iroquois (UH-1) or Chinook (CH-47) log book shows no hot starts, but an inspection of the gas producer turbine shows burnt blades—there must be confusion in the ranks.

So let us now have all Mohawk, Iroquois and Chinook drivers and wrench-benders assemble on their manuals for a briefing on this subject.

10.	OTHER STARTS
To DATE - 2	
Today - 1	
15.	SERVICED

ALL OVERTEMPERATURE CONDITIONS DURING STARTS REQUIRE WRITE-UPS ON DA FORM 2408-13... AND ALL STARTS SHOULD BE ABORTED, FOLLOWED BY CLEARING OF THE ENGINE. IF EXHAUST GAS TEMPERATURE (EGT) RISES UNUSUALLY FAST OR REACHES THE ENGINE STARTING TEMPERATURE LIMIT CALLED OUT IN THE -10.

17.	STATUS SYMBOL	18.	FAULTS AND/OR REMARKS
			FLT. No. 1 ABORT DUE
			EXCESSIVE EGT (620°-640°C)
			D. Patrick 9 SEP 63



# BUCKET BLADES



OKAY..WHEN WAS THE LAST TIME YOU ENTERED A "HOT START"?

NOTHING!

NARY A WORD!

THE MANUAL SAYS...

The Mohawk's TM 55-1510-204-10 (Sep 63) leaves no doubt on this point in para 2-19a, Chap 3. But Chap 3 of TM 55-1520-211-10 (Mar 63) for Alpha and Bravo models of the Huey merely hints at a write-up in para 2-18... same thing with para 2-17, Chap 3, in TM 55-1520-210-10 (Apr 63) for the Deltras.

INSPECT THEM BLADES!

BLADE INSPECTION IS THE CLUE



The exact engine operating limits during starts on all turbine engine aircraft are pointed out in Chap 7 on Operating Limitations in each -10. In other words, this is the EGT at which the engine manufacturer feels that possible heat damage can occur.

This is why engine overtemperature conditions are also called out in the Special Inspection Requirements section of each aircraft's -20. So if you don't record these overtemperatures, chances are you won't remember them later—and fail to have the turbine wheel blades inspected. Next thing you know, a scheduled inspection comes along and we discover blade damage from an unknown cause. That's providing your aircraft makes it until the next scheduled inspection.

In fact, the hotter your engine's rear end gets, the more likely it is that some heat damage has taken place. This is why the special inspection rules become stricter as the temperature climbs.







## SAME WITH CHINOOK ENGINES

Overtemperature conditions affect the operation of all gas turbine engines. So even though the Chinook (CH-47) uses a T55 engine, its EGT operating limits are pretty near the same as those for the T53-series.

The Chinook's interim manual, TM 55-1520-209-10, also cautions against specific EGT's during starting or acceleration . . . and requires the same inspection for these overtemperature conditions. The Chinook manual says nothing about recording hot starts either. But any inspection due—scheduled or special—certainly calls for some reminder in writing, wouldn't you say?

## INDICATOR ERROR'S POSSIBLE

There's always the possibility that what looks like an overtemperature condition is just a malfunction in either the detector or indicator end of the system. So while you're making a special engine inspection, you mechanics might want to add on some of the checks called for in the trouble shooting chart for the EGT indicating system.

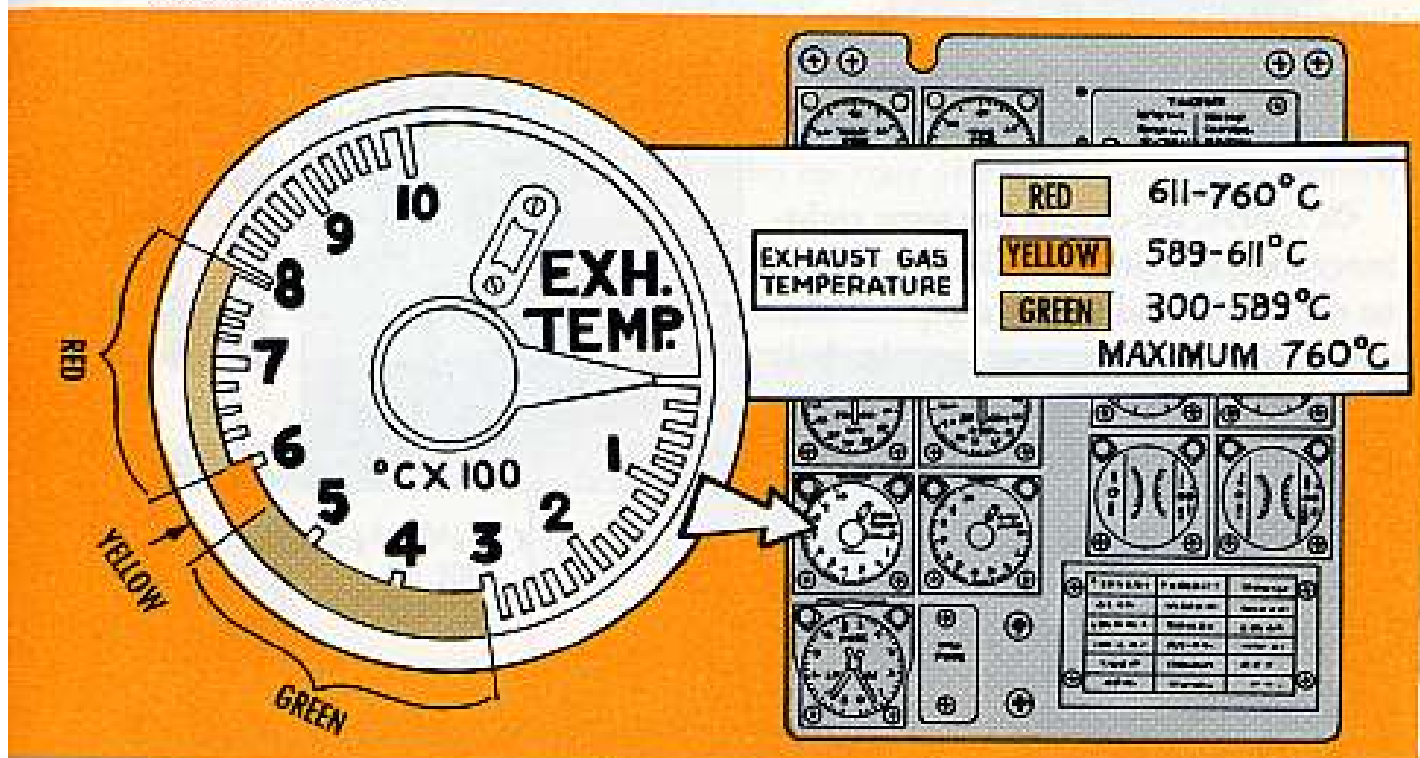
INDICATION OF TROUBLE	PROBABLE CAUSE	CORRECTIVE ACTION
No indication.	Defective indicator.	Replace indicator and forward defective unit to field maintenance.
Variable indications.	Loose connections. Defective thermocouple.	Tighten connections. Forward defective unit to field maintenance.
Low indication.	Resistor improperly adjusted. Defective indicator	Adjust resistor. Replace indicator and forward defective unit to field maintenance.
High indication.	Resistor improperly adjusted. Defective indicator	Adjust resistor. Replace indicator and forward defective unit to field maintenance with thermocouple harness.

Better yet, ask support to check out the system with their new Jet Cal Analyzer . . . FSN 4920-673-5514. This analyzer will ring out the indicator system right in the bird. That Jet Cal should be available at your direct support by now.



## BE ACCURATE

As you can see from this small size discussion, flight safety demands that you read off all overtemperature EGT's in the red as exact as possible . . . so you can record a specific temperature or range on the aircraft's -13 maintenance form. It's a little easier where the EGT indicator includes a yellow arc between the green and red.



### WHEN IN DOUBT—WRITE

It stands to reason that a required inspection could be overlooked without a written reminder in the right place (the -13). So it follows that any EGT condition calling for an inspection has to be recorded.

The first law of the Aircraft Maintenance and Preservation Society states:

**PEOPLE WHO DO THE MOST WRITING ON THEIR MAINTENANCE FORMS HAVE FEWER AIRCRAFT PROBLEMS THAN OTHERS.**



# PAINLESS BOLT PULLING

TAKE OUT BOLT WITH PULLER.



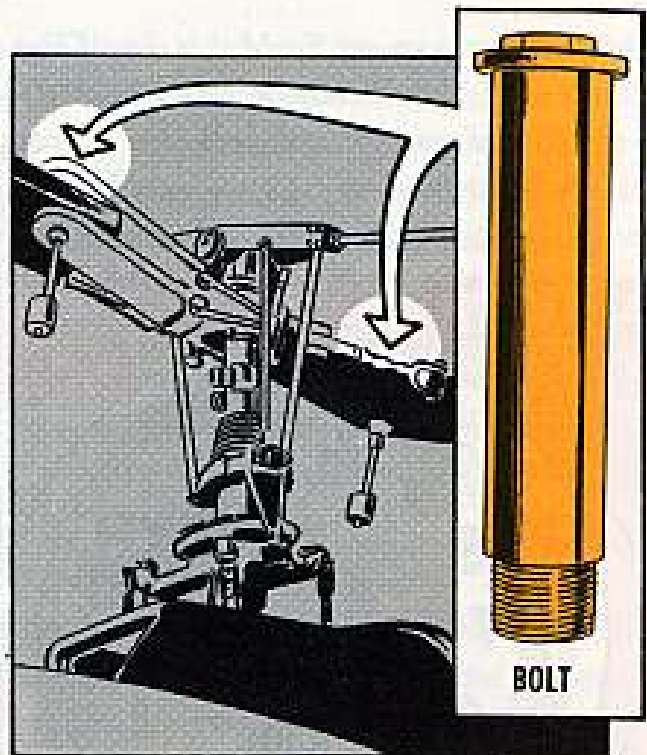
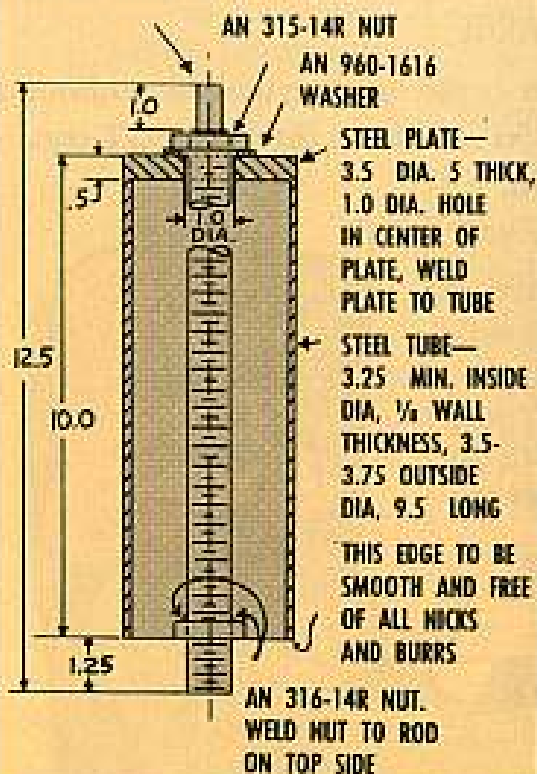
There may come a time when a mechanic has a tougher job pulling a Huey (UH-1) main rotor blade bolt than a dentist has pulling a stubborn wisdom tooth.

Of course, the dentist has some right-fancy tools to work with. The mechanic, on the other hand, has to use a hammer and drift—or better—to get the bolt out. And with those tools he may end up with an injured hand or some damaged bird parts.

If you face this problem, a solution is to get your CO's OK to make up this puller:

These dimensions go for the UH-1B and D Models:

STEEL ROD—12.5" LONG.  $\frac{7}{8}$ " x 14  
 THREADS, ENTIRE LENGTH,  $\frac{1}{2}$ "  
 SQUARE SHANK ON THIS END



If you have the UH-1A Model, you'll need to make these changes:

The steel rod should have 1.00-14 NF threads instead of  $\frac{7}{8}$ -14NF.

The nut welded on the rod should be .50 inch from the end, instead of 1.25 inches.

Then, too, the ID of the puller housing should be 2.50 inches with a  $\frac{1}{8}$ -in minimum wall thickness.

Make the hole in the plate, which is welded to the steel tube,  $1\frac{1}{8}$  inches, instead of 1.00 inch.

Use nuts, AN 315-16R, AN 316-16R, and washer, AN 960-1716 and you're in business.

To use the puller you take the hub and blade off the bird, following the poop in the organizational maintenance pub.

Next, take the plug out of the top of the bolt and center the puller over the bolt. Screw the puller rod into the bolt until it's against the welded nut on the rod, and make with a wrench (clockwise) to pull the bolt. During the pulling be sure you take the tension off the bolt by keeping the blade tip raised.

Yessir, for painless bolt extractions, this puller is just what the doctor ordered.



**TAPE 'EM UP**

**DRAIN 'EM DOWN**



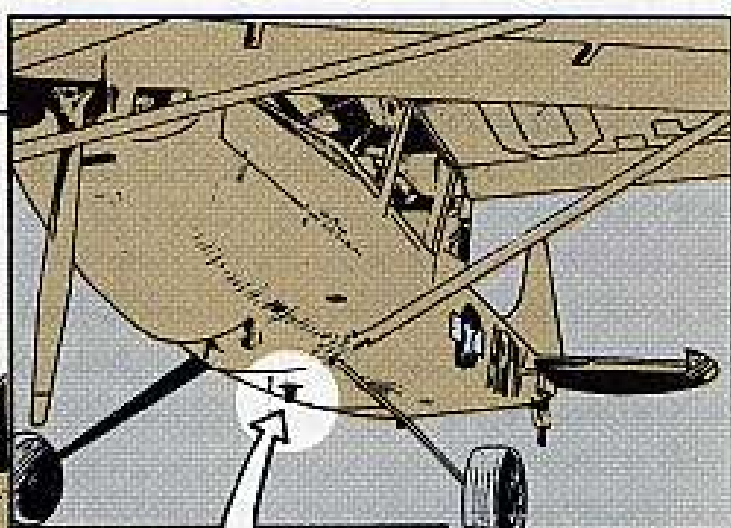
Little holes always seem to cause trouble, no matter where you find 'em. Somebody always wants to cover 'em, open 'em, plug 'em, ream 'em, paint 'em, etc.

Well, when it comes to the drain holes on your aircraft rotating beacons, it's position that counts.

On a Beaver (U-6A) or a Seminole (U-8D), for example, the beacon sets on top of the fuselage. So you leave the protective tape in place on top of the red glass globe.



U-6A: BEACON ON TOP—TAPE ON



0-1: BEACON ON BOTTOM — LEAVE TAPE OFF

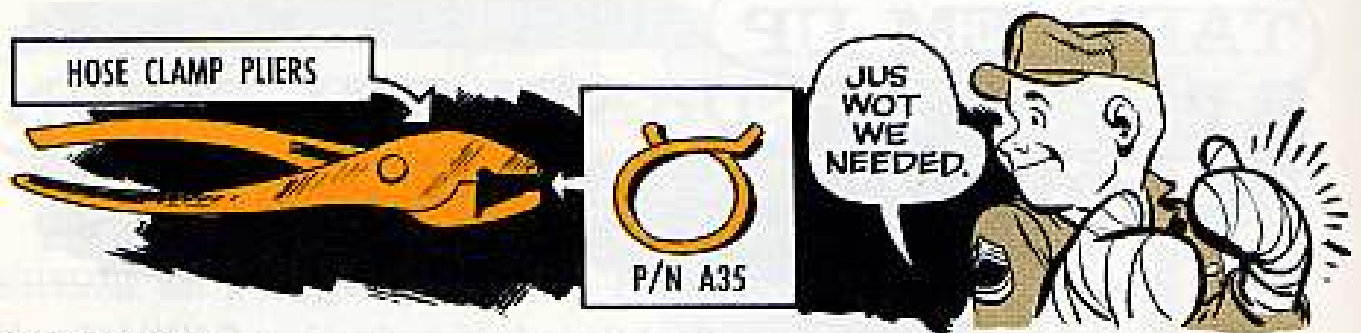
TAPE DRILLED HOLES IN BOTTOM OF FRAME PROTECTING GEAR HOUSING

But on a Bird Dog (0-1), the beacon's installed on the bottom of the fuselage. So you open up the drain hole in the glass and tape up the drain hole drilled in the bottom of the frame protecting the gear housing . . . since everything is reversed for the Bird Dog installation.

All you're interested in doing is protecting whichever part of the beacon faces up or outward from dirt—and to let corrosion-causing condensation drain from whichever side of the beacon faces down. That's why the beacon has top and bottom drain holes.

You won't see this talked about in any TM . . . it's just good common sense.

# CLAMP PLIERS



Dear Windy,

The spring-type of clamp, like P/N A35, may be used on many bird parts as pointed out in PS 130. But they can be knuckle busters if you don't have the right pliers to handle them.

So, what pliers do I use and how do I get a pair?



SFC G. H.

Dear Sergeant G. H.,

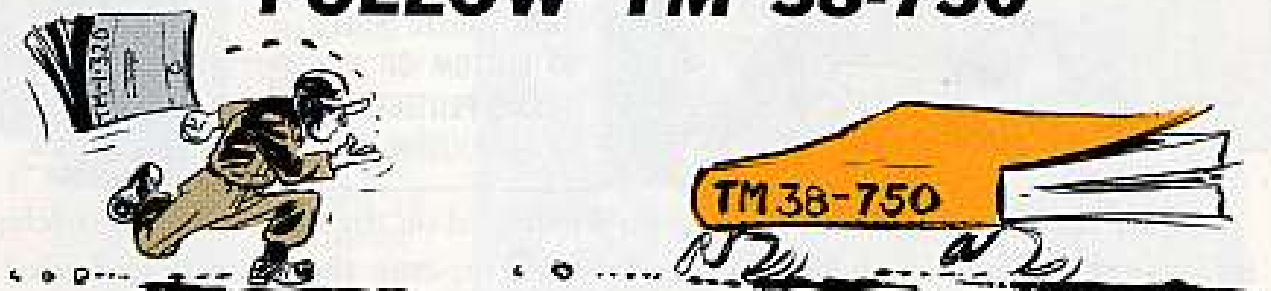
Put aside the bandages and head for the "country store." Pliers, hose clamp, FSN 5120-537-3375, which is part of the automotive mechanic's tool kit, will fill the bill.

If your self-service supply center is fresh out, run your peepers over Federal Supply Catalog C6-5-SL, Vol 2 (1 Jun 63). You'll find that two hose clamp pliers are listed—FSN 5120-537-3375 and FSN 5120-679-6765. Either one will work nicely.

The moola for this purchase comes out of unit funds, since the pliers isn't scheduled to go into any of the aircraft mechanic's tool kits.

*Windy*

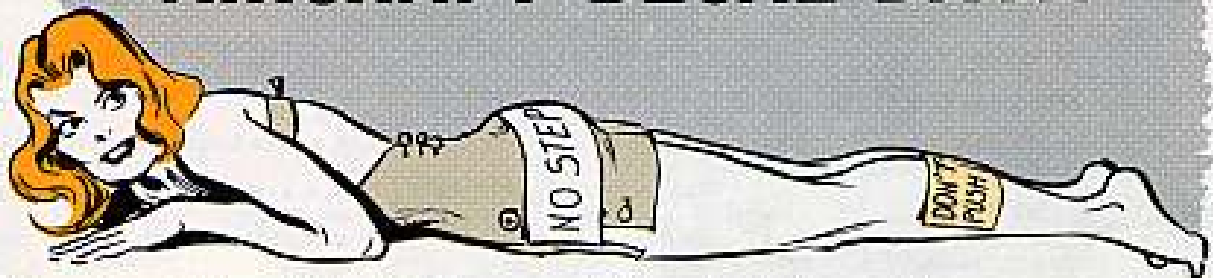
## FOLLOW TM 38-750



Air types, please note! When it comes to the Army Equipment Records System, it's TM 38-750 first, foremost and always. So happens that your copy of TM 1-320 (Jul 63), "Organizational Aircraft Maintenance Supervisor's Manual," has some conflicting info because of difference in dates of publication. But both TM's are being revised and this situation will be corrected. Meanwhile, you follow TM 38-750 when in doubt. OK? OK!



## AIRCRAFT DECAL DATA



If you're still making the big search for decals to stick on your aircraft's fuselage . . . forget it.

You won't find any in stock. And chances are that any you find outside the Army supply system won't be authorized, anyway.

Short shelf life is one good reason for not stocking them. This means you wouldn't be able to rely on getting a good bond from one time to the next. Besides, decals are hard to spread smoothly over curved surfaces, and any time you try to apply them over rivets or other types of uneven surfaces they're liable to bridge on you.

This is why you need special permission from AVSCOM before using decals. Your clues are paras 32 and 61b of TB AVN 7 (Sep 63) on "Painting and Marking of Army Aircraft."

## CHOCK FULL OF FOD

Keeping your empty coffee cans chock full of nuts, bolts, cotter pins, wire and all other kinds of foreign objects won't help the aroma . . . but it'll certainly lend something to that heavenly feeling. Hung on your ground support vehicles, they make convenient collection points for ramp garbage. And you can get 'em in the one-pound, two-pound or even the giant economy three-pound size.

## WHAT'S THE SCORE?

How your bird stacks up in an ESC (Equipment Serviceability Criteria) rating depends on the results of the rating scale in each TM 55-1510 or 1520- series organizational maintenance pub . . . plus. For a complete score you also need the Green, Amber or Red poop on the avionic equipment, from the up-coming TM 11-1510 or 1520 ESC.

## ISOLATED PROBLEM?

When is a bird problem not an isolated one in need of a solution? When you run into it—naturally. You can help solve the problem by taking it out of the "isolated" status with a fresh EIR . . . just like the introduction chapter of the EIR Digest, TB AVN 23-5-1 (9 Apr 63), says.

Here's another addition to add to the Equipment Serviceability Criteria publications in your log book. For previous listings see PS 131, pages 10 and 11, PS 132, page 28 and page 28 of PS 136.

#### TM NUMBER

TM 3-4230-200-ESC, Decontaminating Apparatus, M3A3.  
 TM 5-1940-200-ESC, Boat Bridge Erection.  
 TM 5-2400-200-ESC, Tractors, Diesel Driven, Medium.  
 TM 5-2510-200-ESC, Truck, Bridge Transporting.  
 TM 5-2800-200-ESC, Outboard Motor, Gas.  
 TM 5-3800-200-ESC, Loader, Scoop-type, 1½ cu yd.  
 TM 5-3800-200-ESC, Loader, Scoop-type, 2½ cu yd.  
 TM 5-3800-200-ESC, Loader, Scoop-type, 2½ cu yd.  
 TM 5-3800-201-ESC, Graders, Road, Motorized.  
 TM 5-3800-203-ESC, Crane-shovel, 20 Ton.  
 TM 5-3810-220-ESC, Crane-shovel, Whl Mid 7 Ton.  
 TM 5-4200-200-ESC, Truck, Fire Fighting.  
 TM 5-4300-200-ESC, Compressors Reciproc, 5 cm.  
 TM 5-4300-201-ESC, Compressors Reciproc, 1.5 cm.  
 TM 5-4300-202-ESC, Pump, Gas Engine Driven.  
 TM 5-4300-204-ESC, Pneumatic Tools and Comp.  
 TM 5-4300-205-ESC, Compressors Reciproc, 5.5 cm.  
 TM 5-4310-229-ESC, Pneumatic Tools and Comp.  
 TM 5-4600-200-ESC, Water Purification Unit, 600 Gal.  
 TM 5-4610-204-ESC, Water Purification Unit, 1500 Gal.  
 TM 5-4900-200-ESC, Lubricating and Serv. Unit.  
 TM 5-5420-200-ESC, Bridge Armored Vehicle Launched.  
 TM 5-6100-200-ESC, Generator 3 KW, 60 cy.  
 TM 5-6100-201-ESC, Generator 5 KW, 60 cy.  
 TM 5-6100-202-ESC, Generator 1.5 KW, 28V DC.  
 TM 5-6100-203-ESC, Generator 1.5 KW, 60 cy.  
 TM 5-6100-205-ESC, Generator 3 KW 28V DC.  
 TM 5-6100-206-ESC, Generator 0.5 KW, 60 cy.  
 TM 5-6100-207-ESC, Generator 10 KW, 60 cy.  
 TM 5-6115-206-ESC, Generator 0.15 KW, 60 cy.  
 TM 5-6675-203-ESC, Tellurometer Master and Remote Unit.  
 TM 9-786-ESC, M5 Tractors, 13 Ton.  
 TM 9-1055-203-ESC, M78A1 Truck-Mounted 762MM Rocket Hoisting and Tie-Down Unit.  
 TM 9-1055-205-ESC, M386 Truck-Mounted 762MM Rocket Launcher.  
 TM 9-1055-208-ESC, M405, M405A Trailer-Mounted 762MM Rocket Handling Units.  
 TM 9-2300-203-ESC/1, M59 Carrier Personnel.

TM 9-2300-203-ESC/2, M84 Mortar, SP, 4.2 Inch.  
 TM 9-2300-216-ESC/1, M110 Howitzer, SP, 8 Inch.  
 TM 9-2300-216-ESC/2, M107 Gun, SP, 175MM.  
 TM 9-2300-234-ESC/1, M113 Carrier Personnel.  
 TM 9-2320-206-ESC/1, M125 Truck, Cargo, 10 Ton.  
 TM 9-2320-206-ESC/2, M123, M123C Truck, Tractor, 10 Ton.  
 TM 9-2320-208-ESC/1, M170 Truck, Ambulance ½ Ton.  
 TM 9-2320-208-ESC/1, M38A1 Truck, Utility, ½ Ton.  
 TM 9-2320-208-ESC/2, M38A1C, M38A1D Truck, Utility, ½ Ton.  
 TM 9-2320-209-ESC/1, M34, M35, M36, M36C Truck, Cargo, 2½ Ton.  
 TM 9-2320-209-ESC/2, M47, M59, M342 Truck, Dump, 2½ Ton.  
 TM 9-2320-209-ESC/3, M49, M49C Truck, Tank, 2½ Ton.  
 TM 9-2320-209-ESC/4, M48, M273 Truck, Tractor, 2½ Ton.  
 TM 9-2320-209-ESC/5, M109, M109A1 Truck, Van, 2½ Ton.  
 TM 9-2320-209-ESC/5, M185 Truck, Repair Shop, 2½ Ton.  
 TM 9-2320-209-ESC/5, M292 Truck, Expansible, Van, 2½ Ton.  
 TM 9-2320-209-ESC/6, M60 Truck, Wrecker, 2½ Ton.  
 TM 9-2320-209-ESC/6, M108 Truck, Wrecker, 2½ Ton.  
 TM 9-2320-209-ESC/7, M50 Truck, Tank, 2½ Ton.  
 TM 9-2320-210-ESC/1, M211, M135 Truck, Cargo, 2½ Ton.  
 TM 9-2320-210-ESC/2, M213 Truck, Dump, 2½ Ton.  
 TM 9-2320-210-ESC/3, M217, M217C Truck, Tank, 2½ Ton.  
 TM 9-2320-210-ESC/4, M221 Truck, Tractor, 2½ Ton.  
 TM 9-2320-210-ESC/5, M220 Truck, Van, 2½ Ton.  
 TM 9-2320-210-ESC/5, M238 Repair Shop, Truck Mounted.  
 TM 9-2320-211-ESC/1, M41, M54, M55 Truck, Cargo, 5 Ton.  
 TM 9-2320-211-ESC/2, M62, M543 Truck, Wrecker, 5 Ton.  
 TM 9-2320-211-ESC/3, M52 Truck, Tractor, 5 Ton.  
 TM 9-2320-211-ESC/4, M246 Truck, Tractor, Wrecker.  
 TM 9-2320-211-ESC/5, M121 Truck, Dump, 5 Ton.  
 TM 9-2320-212-ESC, M37 and M37B1 Truck, Cargo.  
 TM 9-2320-213-ESC, M43, M43B1 Truck, Ambulance.  
 TM 9-2320-213-ESC, M274, M274A1 Truck, Platform Utility.  
 TM 9-2320-218-ESC, M131 Truck, Utility, ½ Ton.  
 TM 9-2320-222-ESC, M88 Tank, Recovery Vehicle.  
 TM 9-2320-226-ESC/1, M35A1 Truck, Cargo, 2½ Ton.  
 TM 9-2350-201-ESC, M41 Series Tank, Combat.  
 TM 9-2350-203-ESC, M44, M44A1 Howitzer, SP, 155MM.  
 TM 9-2350-205-ESC, M48A1 Tank, Combat.  
 TM 9-2350-208-ESC/1, M48A3 Tank, Combat.

TM 9-2350-208-ESC/2, M48A3C Tank, Combat.  
 TM 9-2350-209-ESC, M52, M52A1 Howitzer, SP, 105MM.  
 TM 9-2350-210-ESC, M55 Howitzer, SP, 8 Inch.  
 TM 9-2350-213-ESC, M56 Gun, Anti-tank.  
 TM 9-2350-215-ESC, M60, M60A1 Tank, Combat.  
 TM 9-2350-224-ESC, M48A3 Tank, Combat.  
 TM 9-7402-ESC, M74 Recovery Vehicle, Medium.  
 TM 9-7418-ESC, M75 Carrier Personnel.  
 TM 10-1115-ESC, Pumping Assembly, 225 gpm.  
 TM 10-1125-ESC, Pumping Assembly, 50 gpm.  
 TM 10-3900-200-ESC, Tractors, Whl'd, Warehouse.  
 TM 10-3900-201-ESC, Truck, Fork, Gasoline, 6000 lb.  
 TM 10-3900-202-ESC, Truck, Fork, Gasoline, 15,000 lb.  
 TM 10-4930-204-ESC, Tank and Pump Unit, Truck Mounting.  
 TM 11-263-ESC, AN/GRC-9, AN/GRC-87, AN/VRC-34 Radio Sets.  
 TM 11-284-ESC, AN/GRC-3, Thr -B, Radio Sets.  
 TM 11-295-ESC, AN/GRR-5, Radio Receiving Set.  
 TM 11-614-ESC, AN/GRC-39, Radio Terminal Set.  
 TM 11-1338-ESC, AN/FPN-33, and -40, Radar Sets.  
 TM 11-5038-ESC, AN/GRA-6, Control Group.  
 TM 11-5805-202-ESC, AN/MTC-3, Telephone Control Office.  
 TM 11-5805-211-ESC, AN/MTC-7, Manual Telephone Control Office.  
 TM 11-5813-204-ESC, AN/GRC-46 and AN/VRC-29, Radio Teletypewriter Sets.  
 TM 11-5815-205-ESC, AN/MGC-17, Teletypewriter Control Office.  
 TM 11-5815-206-ESC, AN/PGC-1, TT-4A,B,C/TG & TT-335/TG Teletypewriter Sets.  
 TM 11-5820-203-ESC, AN/MRC-54, Radio Repeater Set.  
 TM 11-5820-204-ESC, AN/MRC-69 (V), Radio Terminal Set.  
 TM 11-5820-236-ESC, AN/GRC-26, Radio Set.  
 TM 11-5820-295-ESC, AN/GRC-19, Radio Set.  
 TM 11-5825-202-ESC, AN/GRN-6, Radio Beacon Set.  
 TM 11-5840-208-ESC, AN/MFQ-4A, Radar Set.  
 TM 11-5840-211-ESC, AN/PPS-4, Radar Set.  
 TM 11-5840-220-ESC, AN/MFQ-19, Radar Set.  
 TM 11-5841-218-ESC, AN/APQ-86, Radar Reconnaissance System.  
 TM 11-5850-203-ESC, AN/AA3-14, Infrared Detecting Set.  
 TM 11-5895-205-ESC, AN/MSC-19, Telegraph Terminal.  
 TM 11-5895-204-ESC, AN/APS-94, Radar Surveillance Set.  
 TM 11-6660-203-ESC, AN/MMQ-1, Wind Measuring Set.  
 TM 11-6660-206-ESC, AN/GMD-1, Rowin Set.



# JOE'S DOPE

## THE DAY TH' "OIT" STOOD STILL!!

OF...  
 That @\*!!#@\*!!#  
 Military Standard Engine's  
 seized up!!!

High in the Bavarian Alps, a small "recon" group buttons down for the night... sentries are posted. Radio contact is checked... and the lights wink out...

YAWN! ROUGH DAY TOMORROW... MAN! THIS MOUNTAIN AIR REALLY LAYS YOU OUT...

YEAH! BUT I'M GONNA READ A BIT BEFORE I SACK OUT...

YOU'D BETTER EYE BALL THAT GENERATOR'S ENGINE... SHE'S BEEN GIVING UP THE GHOST... MUST BE THIS THIN AIR...

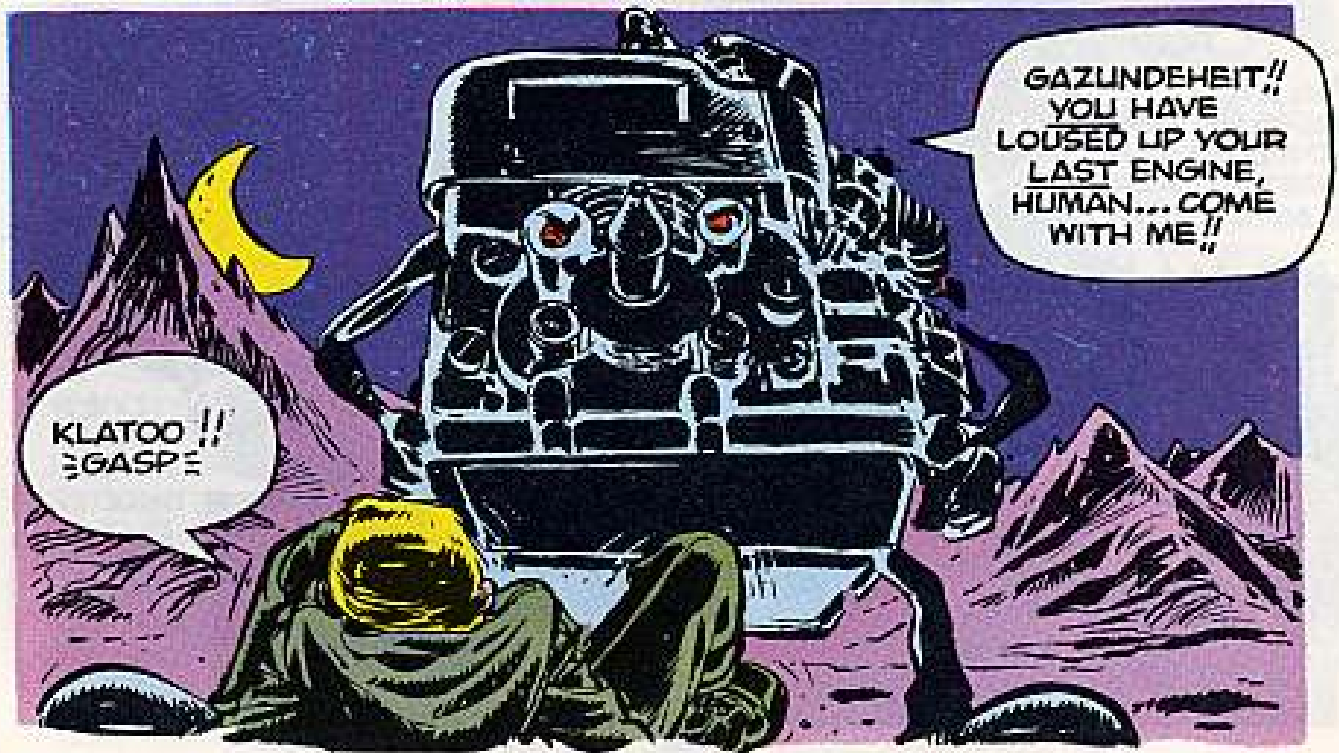
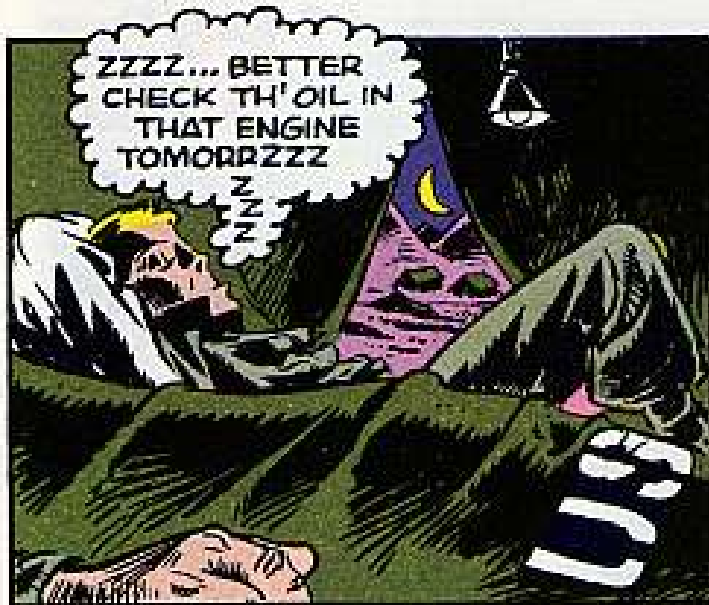
"KLATOO" RAISES HIS VISOR AND A BRILLIANT BURST OF ENERGY BLASTS THE...

"GOO-NITE" OH MIGHTY DEFENDERS OF THE CHOW-LINE!



WOT! @\*!!#@\*!!# LIGHTS BLEW... THAT GENERATOR'S OUT AGAIN.

FOOEY! MIGHT AS WELL SNOOZE OUT... HMMMM WONDER WOT KLATOO DID NEXT...





YOU, YOU RIDICULOUS HUMANS HAVE BEEN KILLING US OFF LIKE BUFFALO... SHEER CARELESSNESS...

START RUNNING!

HUH!!  
A TREAD MILL...



FASTER! HOW DO YOU LIKE IT?? WE RUN STEADY FOR COUNTLESS HOURS... AND WE DON'T COMPLAIN!! FASTER!!

PUFF  
PUFF  
PUFF  
PUFF



Hours later...

≡GASP≡  
WATER...

PLEASE...  
WATER!!  
≡GASP≡

SO... YOU WOULD LIKE SOME WATER, HUH? WHEN WAS THE LAST TIME YOU CHECKED THE OIL LEVEL ON YOUR MILITARY STANDARD ENGINE, HUMAN?



≡GROAN≡

W  
H  
E  
N

I'VE HAD IT!

PUFF PUFF

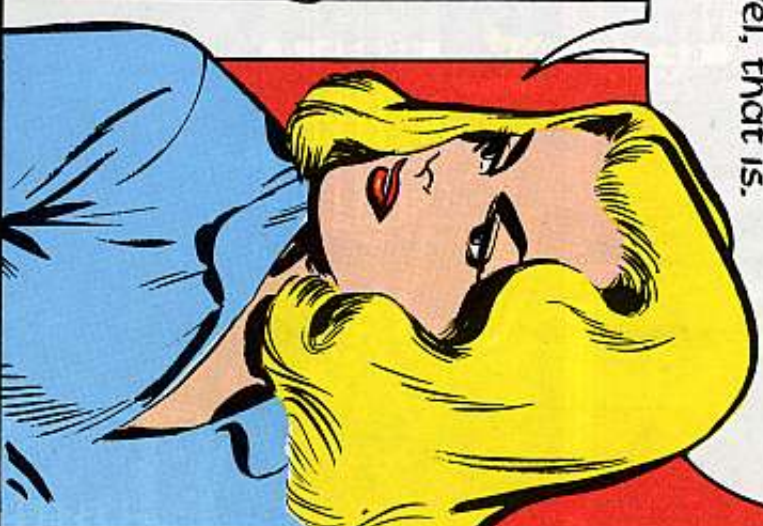
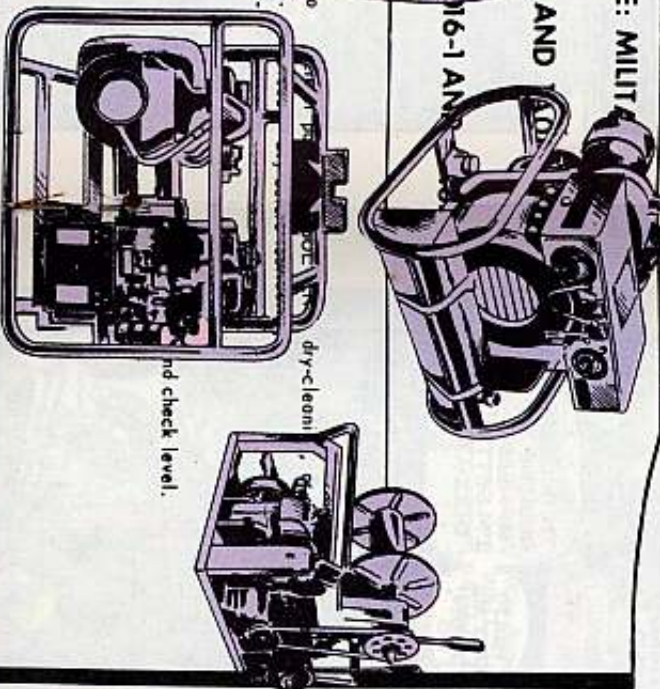
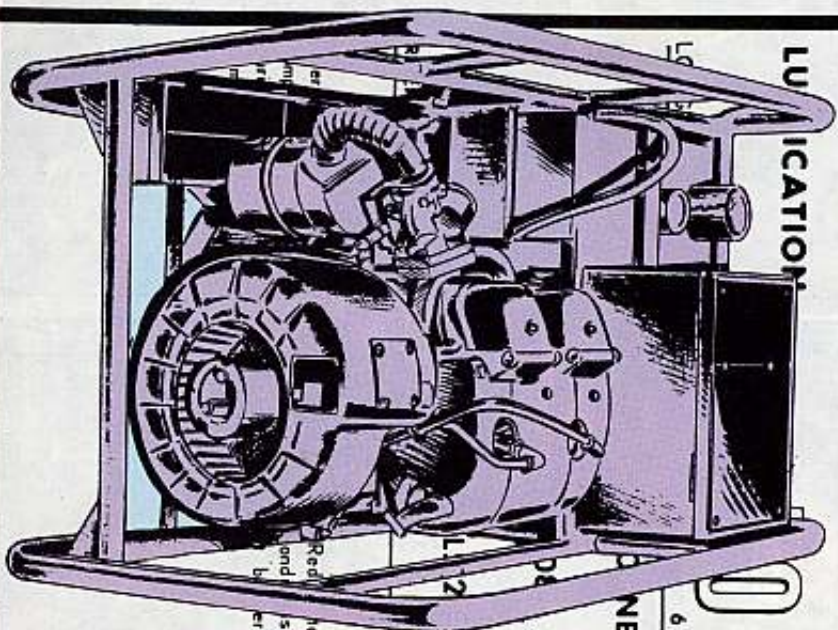
WELL NOW! YOU'VE SEIZED UP, HUH... PARTS BINDING, HUH... JUST LIKE WE DO WHEN NOT CHECKED AT REGULAR INTERVALS.

AND WOT DO YOU DO WITH A SEIZED ENGINE IF'N YOU CAN'T FIX IT??



# Joe's Dope Sheet

That Military Standard Engine's a whiz, With power that keeps you in biz. But for all of that toil, It's gotta have oil. Be sure it stays **full**— On the level, that is.



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.





YOU GET RID OF IT... HAPPY LANDINGS! HUMAN... YAK YAK YAK!!

NO! PLEASE... I GOT LOTS A GOOD MILEAGE IN ME YET!! NO... NO... DON'T!! (SLOBBER)



BACK TO RUNNING! YOU HAD A REST. SO GET THE LEAD OUT!! HUP-HUP-HUP...

PUFF PUFF... HEY! THIS THING IS TILTED WAY UP, I CAN'T RUN... I'LL SLIDE OFF...



I CAN'T! I'M FALLING OFF! GASP! WHEEZ! LEVEL THIS THING OFF, WILL YA PLEASE?

LEVEL YOU SAY! YOU CAN'T RUN RIGHT UNLESS IT'S LEVEL... WELL ISN'T THAT TOO BAD... NEITHER CAN WE! BUT YOU DIDN'T CARE.



HALP! PUT ME DOWN!

TH' BLOOD'S RUSHING TO MY HEAD... I'M GETTIN' DIZZY...

WE WERE GETTING SICK, TOO, WHEN WE OPERATED ON A TILT... OUR OIL COULDN'T CIRCULATE TO ALL OUR MOVING PARTS...

NOT ONCE DID YOU CHECK LO 5-2805-206-14, (6 JUL 62). THE HECK WITH THE OIL! THEY'LL RUN... WOT DO YOU SAY NOW, HUMAN?

I'M DIZZY, PUT ME DOWN, I'M AFRAID OF HEIGHTS...

HEY! WOTTAYA DOIN! GIMME BACK MY CLOTHES.



THAT'S WOT WE WOULD HAVE LIKED TO SAY WHEN YOU PULLED OFF OUR CYLINDER HEAD COVERS AND AIR DUCT ASSY...

YOU DON'T WORK WELL THAT WAY, HUH? NEITHER DO WE!!

UNLESS OUR CYLINDER HEAD COVERS AND DUCT ASSY ARE IN PLACE, THE COOLING AIR ISN'T PROPERLY CHANNLED TO OUR CYLINDERS. UNDERSTAND NOW?

I'M ALMOST NAKED!! COMMAHN! WILL YA...

GIMME BACK MY CLOTHES, PUL-LEEZE!







HERE'S Y'R CLOTHES!

CLUNK!

ZIP



ONE MORE THING!

WOT?



RUN THOSE ENGINES AT THE PROPER RPM OR ELSE! GOT THAT, HUMAN?



NOW, BACK YOU GO!!



Morning... whew

ZIP



DON'T SWEAT IT! "KLATOO" BABY... HERE I COME, HANG ON, BOY!!

KLATOO, WHO?



PUFF PUFF... WOT SAY WE BROWSE THROO TM 5-2805-206-14 TOGETHER, HUH? HOW'S THAT KLATOO, OL' PAL, OL' BUDDY?

WANNA "CHUGA-LUG" A QUART OF OE?

HEH HEH



# A LOSING GAME



When it comes to sizes, you just can't hardly compare a 33 with a 39.

And when it comes to Hawk radars, the AN/MPQ-33 and the AN/MPQ-39 are just as different—only more so.

Not only do the two radars look different . . . the stuff that gets poured into 'em to keep things cool is far from being the same.

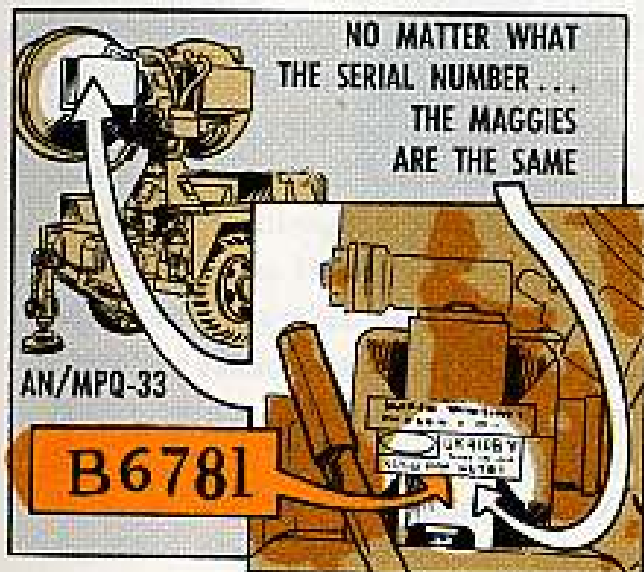
F'rinstance . . . the AN/MPQ-33 uses OS45 coolant. And as it says in paragraph 53, page 218, TM 9-1430-511-12 (Jun 62), the AN/MPQ-39 takes a coolant mixture that includes distilled water.

Comes the day you dump in some OS45 as you make up the coolant mixture for the AN/MPQ-39. It makes no never mind whether you pour in the OS45 on purpose or by mistake . . . the result's the same.

When the OS45 meets the distilled water, you end up with a gloppy mess that clogs up things so bad that the radar's cooling system becomes as useful as fur on a hog.



# FROM A TO B



No sweat.

A magnetron for your Hawk AN/MPQ-33 CW illuminator goes bad. Maybe it's identified by something like A8341 . . . and you get a new one labeled B0097.

This could set you to thinking that somebody goofed. No so.

Once A9999 was reached, the tubes were tagged B001, B002, etc., instead of going to A10,000 and so on up the line.



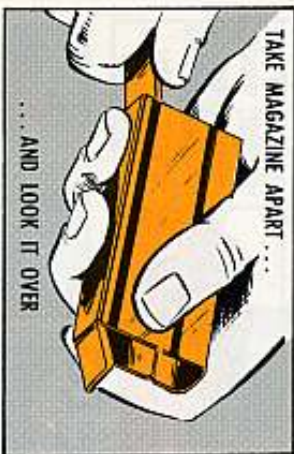
DON'T GET CAUGHT WITH—

# DIRTY MAGAZINES



Do yourself a big favor.

Next time you have trouble with loading or feeding on your magazine-fed rifle, pistol, carbine or submachine gun, take the magazine apart and eyeball it first before doing anything else. Could save you time and sweat.



Umpteen times out of twenty you'll find a dirty, dented, rusty, badly installed magazine at the root of the problem.

Here's a checklist that'll work on any of these small arms, no matter what kind of magazine it has:

**BODY OR TUBE**—Dented, cracked, dirty; catch worn or burred; locking recess or lips deformed, worn.

**FOLLOWER**—Burred, rusty, badly worn, bent out of shape; grovel in the feed lever.  
**SPRING**—Weak, broken, put in backwards.  
**BASE**—Worn, burred, bent, dirty.

All of these magazines come apart the same way, except the one for the M1911A1 .45-cal pistol. This one you open from the follower end instead of at the base.



If any of the parts are damaged, turn in the whole magazine. But if dirt's your problem, get busy with solvent. Then lightly lube it with PL special.

And now do yourself an even bigger favor: Take gentle care of that magazine. Keep it clean and protect it against hard knocks, especially when you're getting in and out of vehicles.

Dirty magazines contaminate your operation every time.

	M14 RIFLE	M3A1 SUB-MACHINE-GUN	M1A1 CARBINE	M1911A1 PISTOL	M12 SHOTGUN
MAGAZINE BODY OR TUBE					
FOLLOWER					
SPRING					
BASE					

## M107 - M110 POOP

Want an air filter element for your M107 or M110 self-propelled artillery? Don't use the FSN in item 8 on page 19 of TM 9-2300-216-20P (Jul 62). FSN 2940-751-9070 is what you need to get the filter element.

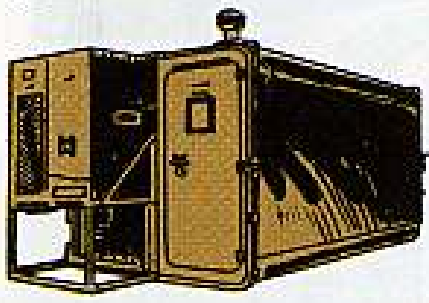
FSN 2940-751-9070 WILL GET YOU THE FILTER ELEMENT FOR YOUR M107 OR M110.



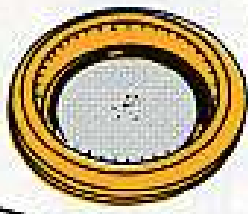


# A BURNING QUESTION

Dear Half-Mast,  
 Just what's been published telling Hawk units when cathode ray tubes in the battery control central get replaced because of burn spots? SFC M. H. L.



IF BURN SPOTS ARE IN RADAR EFFECTIVE ZONE CRT SHOULD BE REPLACED...



... IF BURN SPOTS ARE IN DEAD ZONE - CRT IS STILL GOOD.

Dear Sergeant M. H. L.,  
 Nothing. But read on.

Until the scoop does show up in a change to TM 9-1430-501-12, here's how to handle the situation.

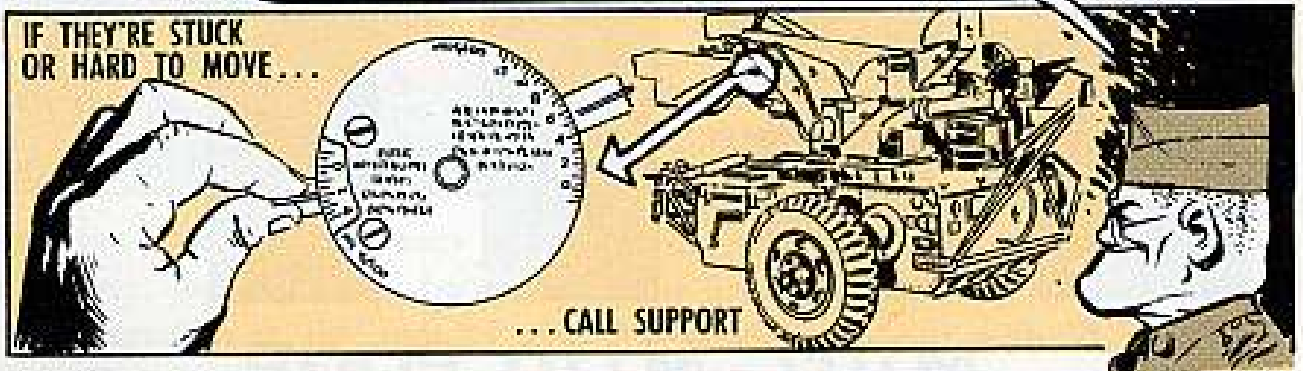
A CRT wants to be replaced when the burn spots are in the radar effective zone . . . and could foul up the tactical mission of the battery.

The CRT is still good, tho, when the burn spots are within the dead zone of the radar.

You can help keep the spots from developing, or spreading once they appear, by cutting down on the brightness of the scope as far as you can and still have a "picture."

*Half-Mast*

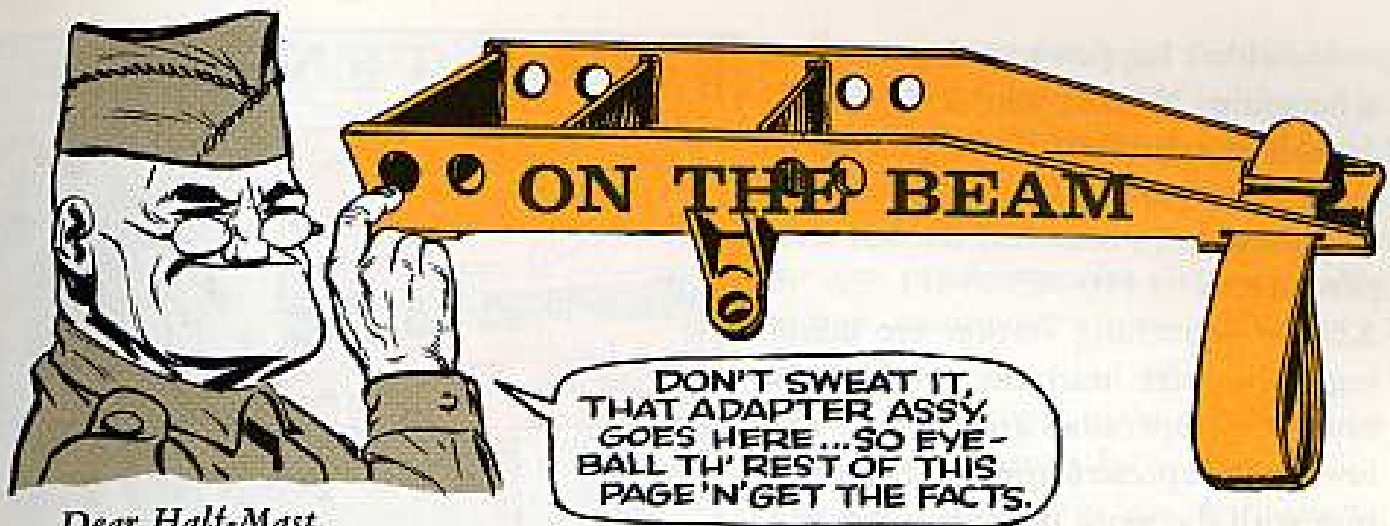
## DO THEY MOVE?



Every now and again—during your weekly performance check would be a good time—check the handcranks (maybe you call them arms or something else) for the elevation fire interrupter and azimuth fire interrupter override mechanism on your Hawk

launcher.  
 You want to do this before making your firing cutout checks to see if the handcranks move up and down without any sweat. If they're stuck or hard to move, sing out loud and clear for help from your support outfit.





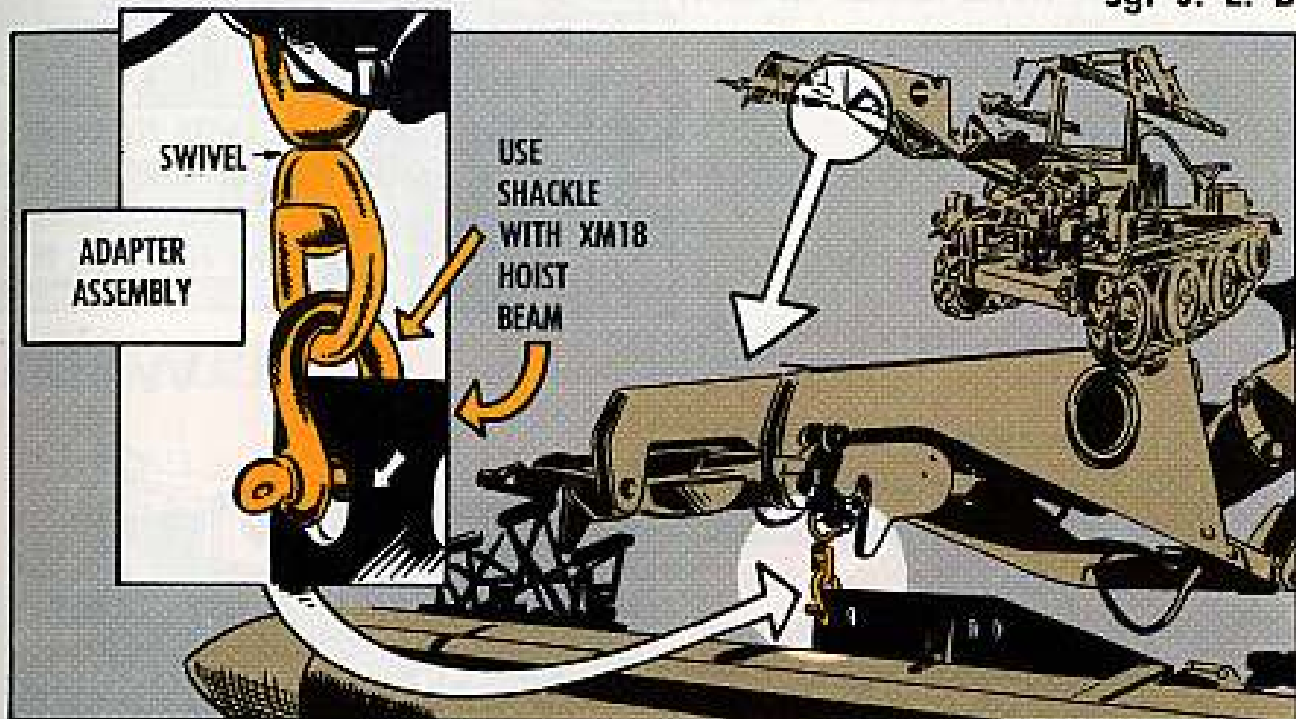
Dear Half-Mast,

If you look on page 2 of Change 3 to TM 9-1450-500-10, you'll see a picture of an adapter assembly.

The assembly's used on the boom index tip of the Hawk loader so's you can use the XM15 missile hoist beam to move missiles around when you're in a tight place—like a tent—that's too crowded to do the job with the crane assembly.

What I'd like to know is—and I'll bet guys in other Hawk outfits are in the same boat—just what are we supposed to do with the shackle that comes with the adapter assembly?

Sgt J. E. B.



Dear Sergeant J. E. B.,

That's a good question.

You use the shackle when you're lifting a missile with the XM18 hoist beam. That is . . . the swivel part of the assembly is attached to the shackle and then the shackle is slipped into a lifting eye of the hoist beam.

Then you're all set to use the XM18 like you do the XM15 hoist beam.

Half-Mast



Shouldn't happen to a dog—or even a Sergeant. Missile, that is.

And it wouldn't, if all Joes played their travel music by the good book.

Meaning . . . bent rear tension members (FSN 1440-768-2541) on the XM504 launching station are becoming a king-size headache, and only because some operators are careless. They lower the superstructure to travel position with the work platforms locked in the raised position. You can't do it that way, no-how.

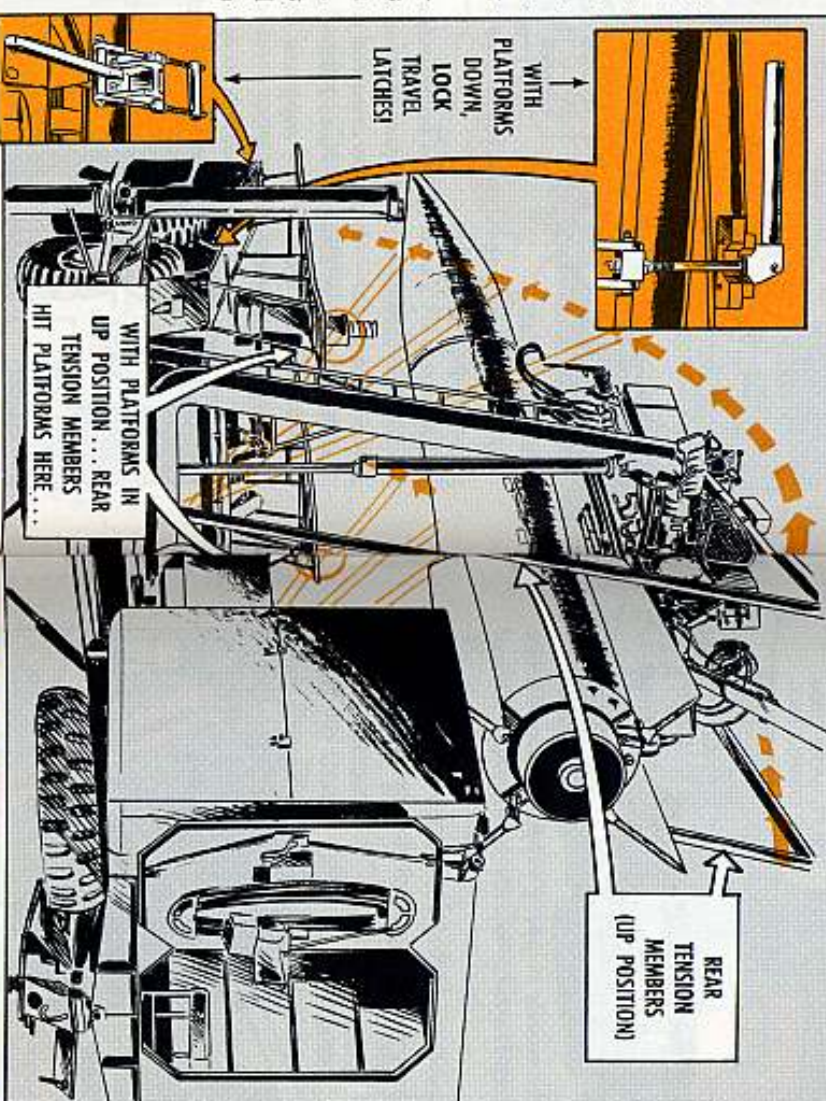
What you should do—every time—is to make real sure that both platforms are locked down in the travel position before you lower that superstructure. This means making sure the supports are down and the operating travel latches and the travel latches on each platform are locked tight.

Bet you can't guess who or what's causing O-ring failure on outrigger jacks on the XM504 Sergeant launching station.

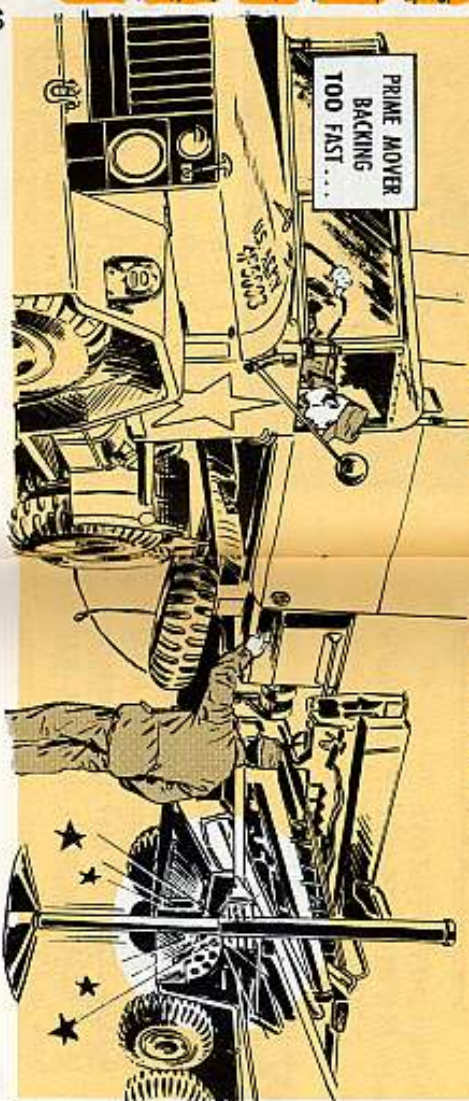
Y'r wrong. It's not lack of lube or exercise . . . though these might sometimes be suspects.

It's YOU, the chief of section. Or rather, a combination of you and the guy who operates the prime mover. That's who!

## TENSHUNI! UGHI!



## WHO DUNNIT!



But, so's you don't get listed among these careless-types, stick to the script in para 116c of Change 4 (25 Jun 63) to TM 9-1440-301-12 (5 Jun 62).

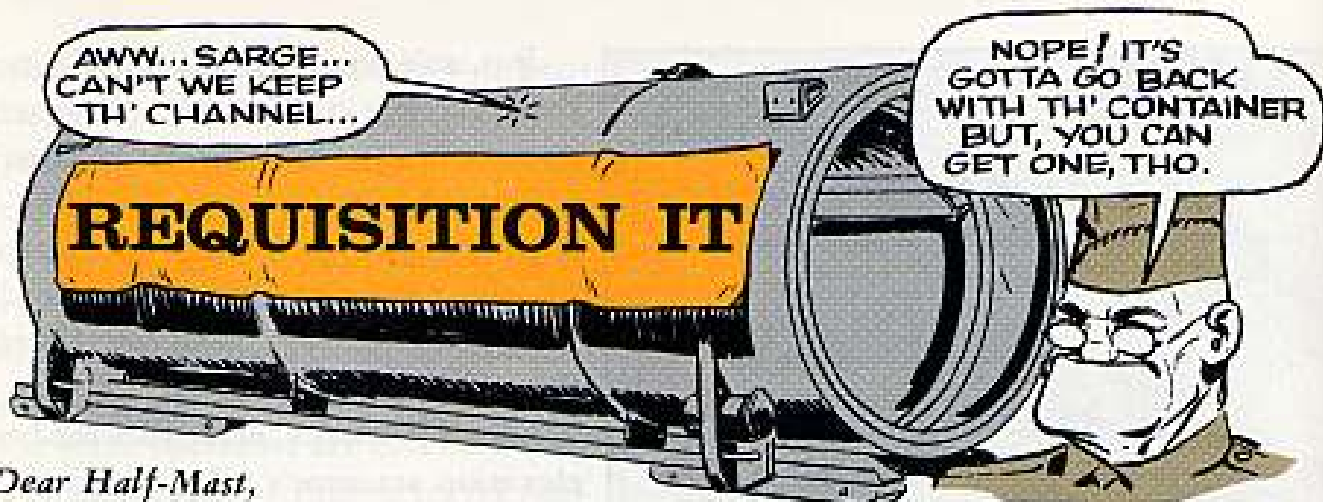
In other words, besides watching out for the platforms, do all the needful things mentioned there in 116c(1) through (10).

Like, for instance, make sure the boom elevation actuator's fully retracted . . . that the cable plugs are disconnected from the receptacles on the boom . . . that the hoist yoke's seated right in the trolley . . . stuff like that.

And while you're at it, take another second to doublecheck the new safety angles on electrically grounding the equipment, physical fitness and keeping your big fat feet off'n the bubble level and leveling manifold. These are spelled out in para 80 of Change 6 (26 Sep 63).

Here's the how-come: If the prime mover backs too fast under the launching station, it'll buckle the outrigger jacks . . . and the O-rings'll poop out. And here's what you can do about it: Every time mating time comes for the prime mover and launching station, YOU be on hand to see that the prime mover backs in s-l-o-w and e-a-s-y. Or if you can't be there, make sure your stand-in follows through on this.





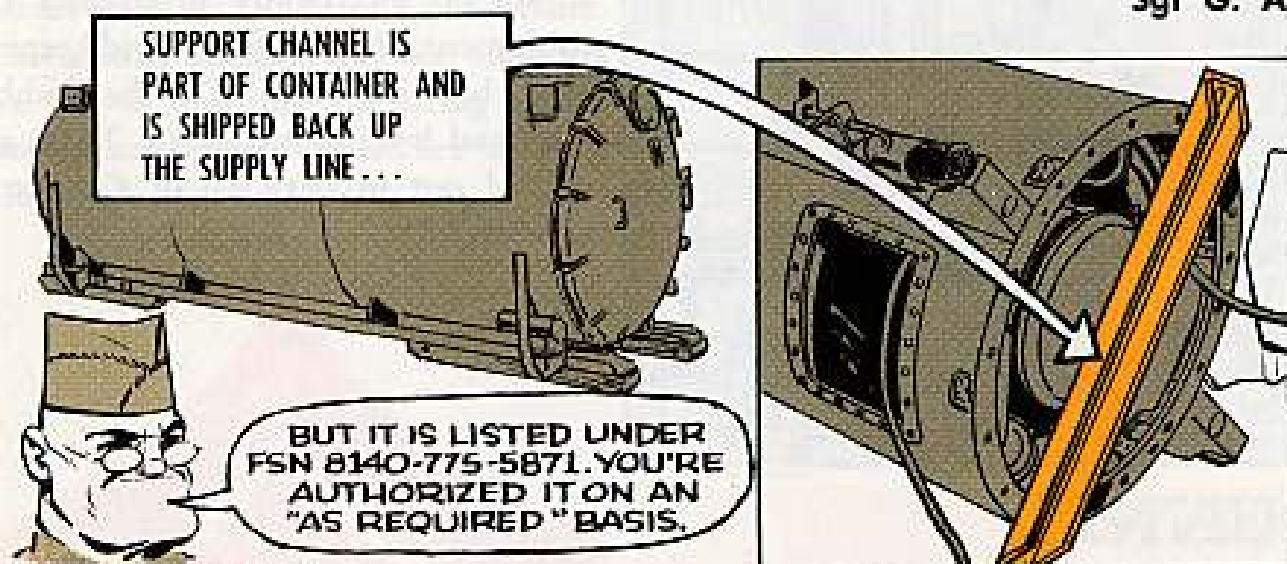
Dear Half-Mast,

As you know, we're supposed to use the missile shipping support channel when we make an air leakage test on the Nike-Hercules missile transponder control group.

The trouble is, tho, the support channel is a part of the missile shipping container . . . and gets sent back up the supply line along with the container.

What's the answer?

Sgt G. A.



Dear Sergeant G. A.,

You'll find it on page 6 in TM 9-1410-250-12P/1/1 (Jul 63).

The support channel is listed there under FSN 8140-775-5871 . . . and you're authorized it on an "as required" basis.

*Half-Mast*



## A NEW PUB

Go modern. The latest LO that tells you about lubing the automotive parts of your Nike vans and trailers is LO 9-2330-212-12 (10 May 63). It replaces LO 9-8224 that made the scene way back in 1956.

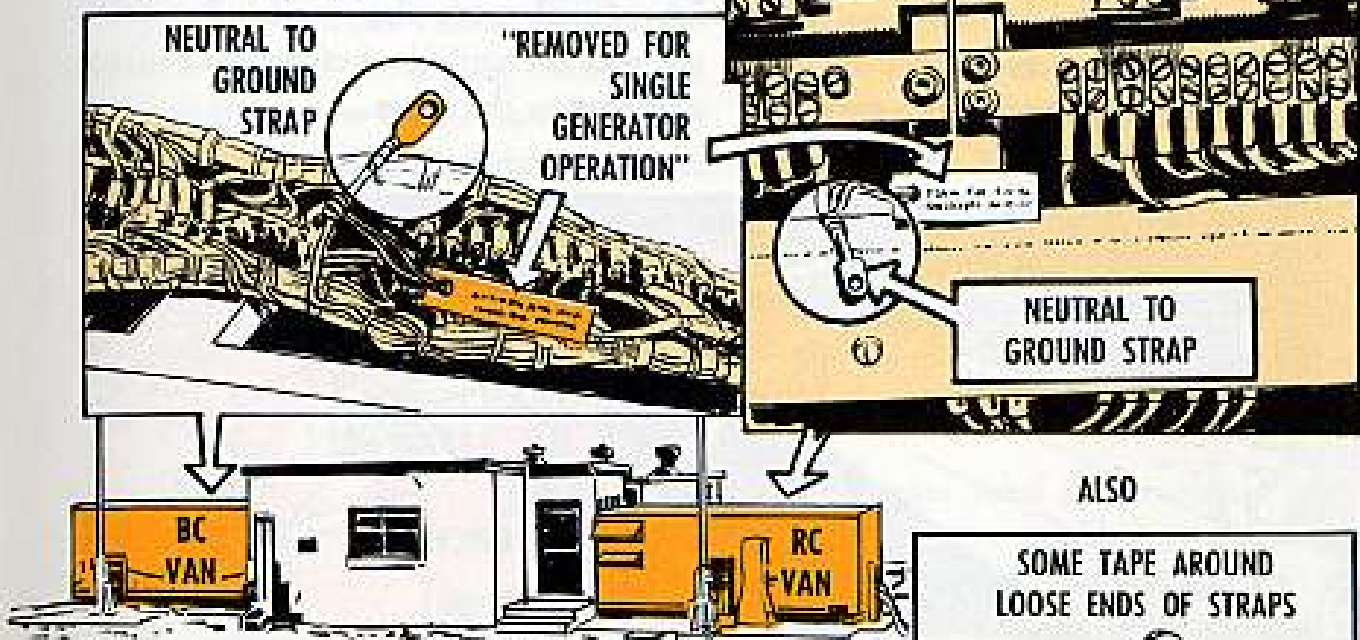
# AN ALARMING SITUATION



During daylight hours, it's not too noticeable from a distance.

But let one of your Nike-Hercules BC or RC vans catch fire at night . . . and you've got yourself a deal that'll

That shouldn't be news—not when the scoop is on page 156 of Change 5 to TM 9-1430-251-10.



light up the sky for miles around.

Things can get mighty hot around one of the vans this way because of an accident or forgetfulness—believe it.

F'instance . . . switching from the use of two generators back to one when you're in a place where generators provide your power will get you into trouble if your thinker's not in gear.

What you want to remember is that the neutral-to-ground straps in the power cabinets for your RC and BC vans need special attention when you're using one generator or one converter.

It's also a good idea to hang a small tag on the straps that you disconnect. Write on each tag something like

**"Removed for single generator (or converter) operation."**

That way you won't have any explaining to do if an inspector strolls through your vans.

And wrap some tape around the loose ends of the straps.



# LOOK FOR CRACKS



Don't blink too long when you're eyeballing those boltwells at station 87.500 on your Nike-Hercules missile. You just might miss a crack or two in the boltwells.

The chances are better'n even that sloppy handling when you remove or

replace the nose section will lead to cracks in the boltwells.

So . . . take your time when you remove the nose section and make sure it's alined with the warhead section the way it should be before you replace and torque the bolts.



## NO CRACKS, JOE



Your Nike elevator platforms are tough. But when you're doing your regular maintenance, keep a sharp eye on those platform floor sections. If you find a crack—especially one that's getting longer—ask your support for a welding or fish-plating job.

## CHECK THOSE BATTS

TB 9-1400-250-20/3

Now that it's in print . . . are you using it? That's TB 9-1400-250-20/3 (10 Jul 63), which replaces TB 9-1430-600-20 (16 Oct 58). The TB gives you Nike people the word on making batts checks on the different pots in your system. What's really new is a worksheet that you use to record the checks.

ON THE

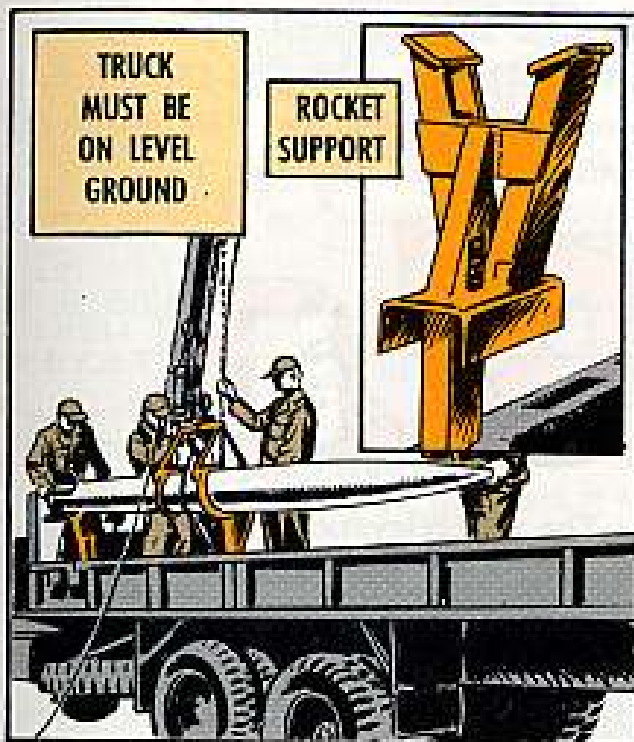
LEVEL

NOW!



Who says you can't mate your Littlejohn or put an insulating blanket on it while it's on the M572 handling unit without worrying about dumping the 318-mm rocket motor off the rocket supports?

To ease your mind, though, just remember this: The rocket motor weighs in at 544 lbs and the assembled Li'l John at 800. You'd have to be Super Mouse to topple 'em over. You don't even need anybody to hold 'em steady during the operations. Their weights're enough to keep 'em in place . . . provided the truck's on the level, like was said.

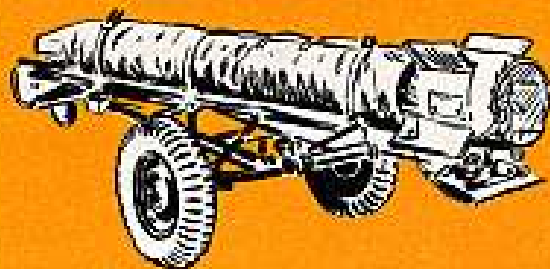


This same need for levelness holds true, mind you, whether you're doing the mating and blanketing on the M572's rocket supports or saddles or on the M14 cart or the M34 launcher. The vehicle's wheels must be on level ground.

It can be done—safely and easily, too—if you do it the right way.

Which means, first of all, making sure that your deuce-and-a-half's on level ground.

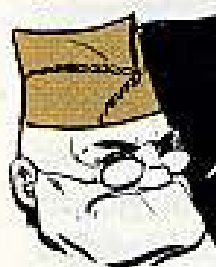
M14 CART  
ON THE LEVEL, TOO





Now, TM 9-1055-212-12 (Sep 62) spells out with pictures just how you go about mating and blanketing Li'l John on the rocket supports, and also how to blanket him on the saddles. But it won't show you how to mate him in the saddle.

No sweat, though. Except for one important detail, you follow the same procedure for mating in the saddle that you use to mate on the rocket supports.



WHEN MATING IN THE SADDLE, ALWAYS MOVE THE REAR SADDLE - THE ADJUSTABLE ONE - TO THE FORWARD POSITION IN THE TRUCK BED.

That one exception's this: When mating in the saddle, always move the rear saddle—the adjustable one—to the forward position in the truck bed. OK?

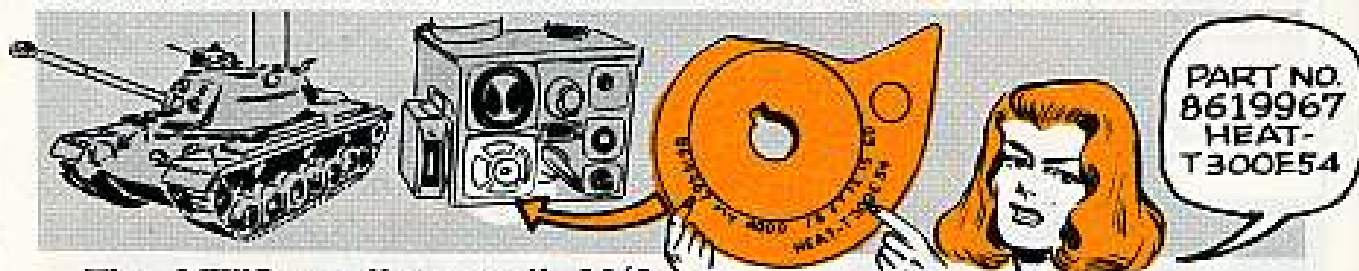


## NEW HEAT CAM

Here's the latest poop on MWO 9-2300-249-10 (Jun 61) . . . This normal MWO is for a cam and identification plate used on M13 (T31), M13A1 and M13A1C ballistic computers when firing T300E54 (HEAT) ammunition.

So everybody relax . . . huh?

The modification kit that you ordered for your MWO—listed as part number 5800891, FSN 1220-604-1302—will work for any of the T300E HEAT rounds, T300E54 through T300E59.



The MWO applies to all M48, M48A1, M48A2 and M48A2C tanks. Although the MWO don't say so, it also goes for the M48A3 tank with its M13B1C ballistic computer.

The MWO mentions only HEAT T300E54 rounds and this is getting some tankers shook up because they are being issued other HEAT rounds such as the HEAT-T, COMP B, T300E57 and they think they need a different cam for this ammunition.

The superelevation cam, part number 8619967, FSN 1220-474-5381, is accurate for the whole T300E HEAT round series . . . Incidentally, the latest HEAT round, T300E59 is now being stamped as M431 or M431E1. Mox nix! Your cam will work on all of 'em.

With the cam you should also have firing table FT 90-N-2 (Jul 63) which is in meters or FT 90-N-1 (Jun 57) w/C1 which is in yards.

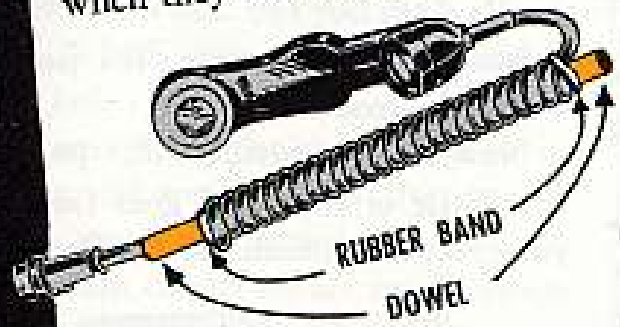


# HANDSET STORAGE

Dear Editor,

We read the article on page 61 of PS 128 on how to get kinks out of retractile cords on headsets and handsets, but we've figured out a way to avoid kinks through better storage . . . and to save wiring, too.

Our "fix" applies particularly when the handsets, etc., are stowed in a hanging position, but it also saves cords when they are stowed other ways.



We simply slip a  $\frac{3}{4}$ -in dowel (or even an old broomstick) through the coil of the cord and secure both ends of the cord to the dowel with rubber bands. A 15-in dowel is about right for most cords.

The fix not only keep cords from kinking, but it keeps the rubber insulation from cracking and helps protect the wire from breakage by the pull of the hanging cord.

We've saved a lot of cords this way.  
The Men of Co B  
801st Maint. Bn  
Ft Campbell







**DON'T BE A JERK WITH THIS PERK**

Temptation stay 'way from my door.

There are times, with "opportunity knocking," when it would be downright unmanly to be that virtuous. And then there are times....

Like, the AN/PRC-6 radio set is a bundle of slow-rolling electronic curves and curiosity-stirring angles. You may have the opportunity, but for everybody's good—including yours—resist the temptation.

There are spots where the Perk-6 is touchy; where unfamiliar hands leave it cold. Here's where you gotta let the man who knows it do the handling, if you want it to put out.

For instance, with the IF tuning slug adjustment screws and the discriminator. Adjusting the tuning slugs and discriminator is strictly a support function.



Organizational mechanics shouldn't even give them a second covetous



glance. You just don't have the tool or the test equipment.

An unknowing hand on them can knock the set out of alignment, create distortion, or hurt responsiveness of the receiver.

So-o-o, kill that urge. It's just not worth the trouble.

Now another virtue—like patience.

A little of that stuff goes far when you erect the antenna of the Perk-6.



You can break the clip. A smooth, straight pull will do the job . . . and save the case from the repair shop.

Forethought also is a good ingredient to use with a Perk-6. A good time to apply it is when you're about to align the set.

A new or slightly used battery works out fine here.



Why?

Because you can't align the set right with a weak battery. A run-down power source may give you your rushing noise; and it may even give enough juice for the set to put out. But you can't align it right. Which means it won't perform at its best.

So next time you're pulling in or putting out weak signals after proper tuning, try a fresh battery and retune it. Never rush the set off for repair unless you've done this.

There's another application of forethought that can save you damage, too.

Specifically, when you're putting the set down, don't lay it on its face. Face-down may bend or break the audio connector or damage other protruding parts.



Best deal is to lay the set on the side opposite the push-to-talk switch. Even putting it on its back is better than face-down.



Finally, there's prevention, like in an ounce of . . .

There are many, many times when prevention applies to the Perk-6, and one of the best is when you take out the battery.



Like, remove the power cable from the battery before you take the battery from the case. Wrap your fingers around the connector head and pull straight out.

Taking out the battery with cable attached, or gripping the wires to disconnect the cable can bust up the connector pins or break the cable.

Those little virtues may not win you a good conduct medal, but they'll sure keep you communicating.

Which is a prime virtue in itself—right?



## THIS HOLE BELONGS

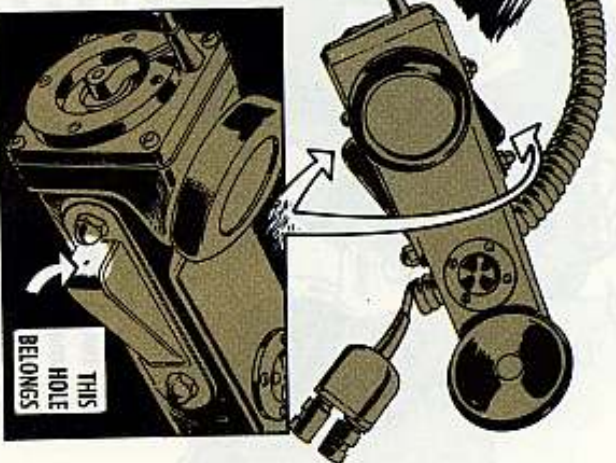


Like a hole in a nipple or a shoe on a foot, that little pinhole in the covers of the TA-1/PT switches belongs.

So tell that to your buddy next time he pushes the panic button before an inspection and starts the foul deed of ripping the rubber cover, just so he can get it replaced with a hole-less one.

The only thing he'd get from support would be a new cover . . . with a hole in it.

The hole, in both the push-to-talk and generator lever covers, is an air vent. It's supposed to be there, even though you can barely see it.

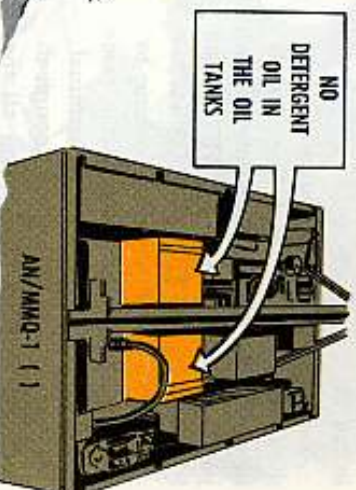


In fact, if you could turn the covers inside out, you'd see a little rubber bevel. It supports the rubber around the air vent and keeps the vent from getting larger.

## UPDATE YOUR TK-100/G



## NO DETERGENT OIL - AGAIN



When it comes to your AN/MMQ-1 ( ) wind measuring set, the latest dope is no soap. Absolutely no detergent-type oil in the oil tanks for the mast assembly. It can ruin the oil seals.

What you want to use is Lubricating Oil, Hydraulic: Spec MIL-L-15017A, Military Symbol 2075H.



The Oil, Internal Combustion Engine, called for by TM 11-6660-203-10 w/changes, TB SIG 213-37 and PS 130 is a detergent-type oil and should not be used in the hydraulic tanks.

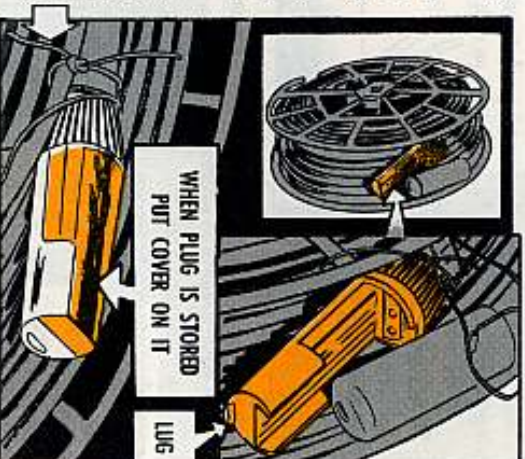
## SECURE TO STORE

A slug to the lug on the plug disables your cables—no fables.

Translation: Keep the cover on the plug of your 26-pair cable when you store it, so's you don't break off the lug which anchors the cover.

Also, a stored, coverless plug leaves the contacts and insulators of the plug on the CX-4566 cable wide open for damage.

And after you wind the cable on the reel, you can get added protection by securing the plug to the inner section of the reel rim with a piece of field wire or strong twine. It keeps the plug immobile.





# FIX IT — FOR GOOD

Downright annoying . . . that's what it can be.

You know, the way the switches on the C-2894/FG telegraph line controls in your AN/MS-29 drop down when you want them up—in 4W FULL DU- PLEX and 2W SPEECH PLUS 4W.

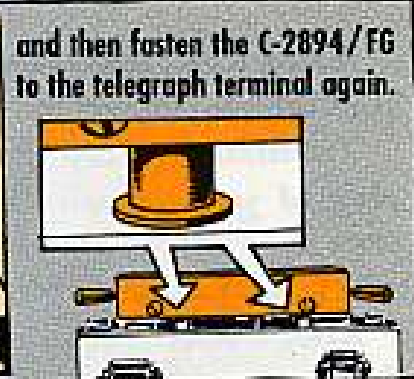
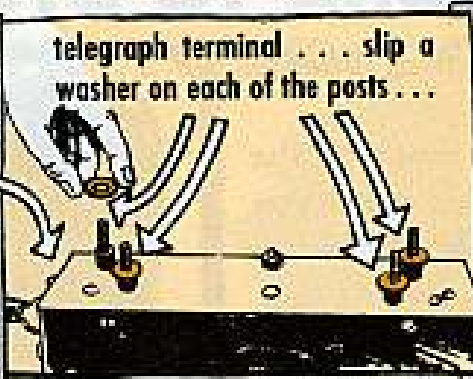
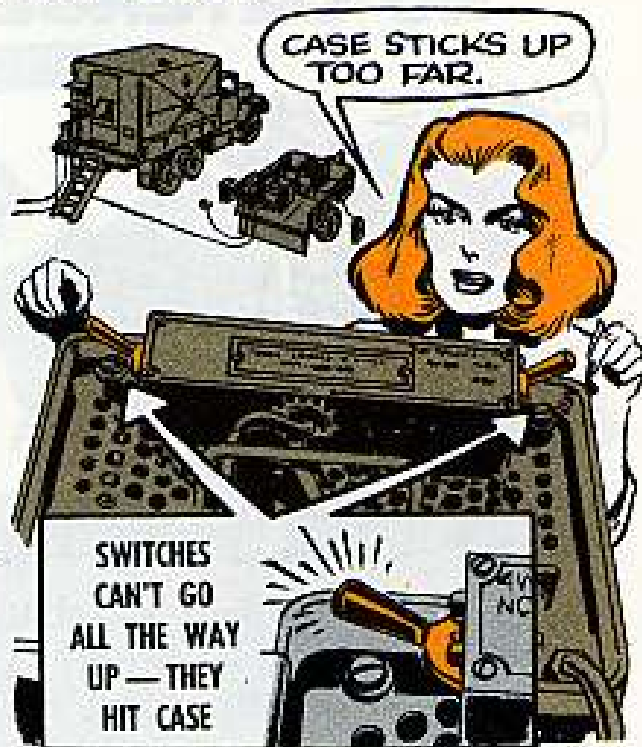
It doesn't take any real looking to see that the troublemaker is the case for the TH-5/TG telegraph terminal. The case sticks out just far enough to keep the switches from going all the way up. Maybe they'll stay in position while you're looking at 'em, but turn your back and "click"—down they drop.

Some guys solve the problem by taking hold of the C-2894/FG and pulling. This puts a bulge in the panel of the telegraph terminal and gives the switches room to move up.

The best you can say for this kind of fix is that it's temporary.

It doesn't make sense doing things like that, tho, not when you can spend a little more time and come up with a deal that's permanent.

All it takes for each telegraph line control is four flat washers. No. 8 washers are about 1/16 inch thick and usually do the trick.



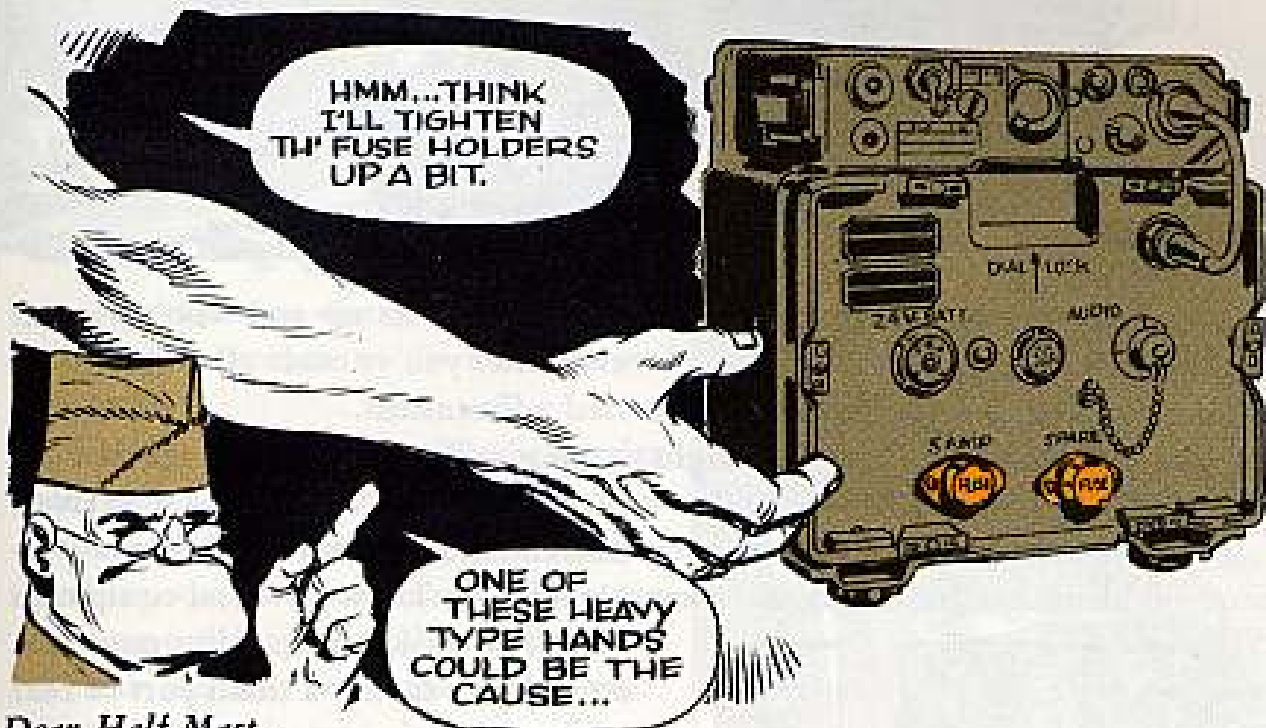
After you push the panel for the telegraph terminal back in place and put the whole works back in the AN/MS-29, you're in business.

You can see that the washers put enough distance between the telegraph line control and panel of the telegraph terminal for the switches to miss the edge of the case.



Of course . . . if you still don't have the needed clearance, add another washer on each post, or use washers with more thickness.

# FUSEHOLDER SAVER



Dear Half-Mast,

What's the poop on the fuseholders in the AM-598/U amplifier-power supply used to adapt the AN/PRC-8 thru -10 radio sets for vehicle use?

Every so often we get the amplifiers back in our shop with the fuseholders cracked. Any reason for this?

Sgt J. P. B.

Dear Sergeant J. P. B.,

Only thing I can think of is you got some heavy-handed procedure goin' on there.

Seems I heard somewhere that this trouble was traced to overtightening the fuseholder caps when fuses are replaced.

Your best bet would be to spread the word that fuseholder caps should be snugged enough to make a good contact . . . but not so much that it'd take pliers to get the caps off again.

*Half-Mast*

## TOOL KIT FOR NI-CADS

There's a TK-90/G tool kit (FSN 5180-542-5812) waiting for your unit if it has to pull maintenance on nickel-cadmium batteries.

THE KIT IS A STOCK FUND ITEM, COSTING \$68.90, AND YOUR REQUISITIONS NEED A FUND CITATION. SB 11-559 (15 AUG 63) IS THE AUTHORITY.



SB 11-559  
(15 AUG 63)





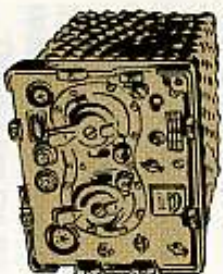
Yep. Screwdriveritis is its name. And when a set acts up and won't put out even after you've made all your author-

A most unfunny disease is this. It ized adjustments.

cripples equipment. Under the right Like with the tuning slugs and ca-

circumstance, it could even be fatal. pacitors on the RT-66 thru -68 receiver-

It usually strikes thru operators with transmitters, f'instance. Support peo- ple have the know-how and equipment needed to make those adjustments. A screwdriver is only a small part of that equipment.

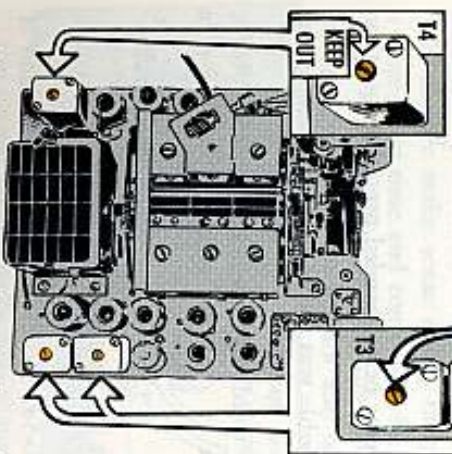


Which means: Hands off the T1 thru T8 tuning slugs, even tho they look mighty tempting. A slight twist can mess up your set, performance-wis-

Same goes for the C1-F, C1-H and C1-J capacitors. Keep that screwdriver away, or forget about usin' that set for awhile. It may take your support quite a bit of time to figure out what screw-

driveritis did to it. When they do, your Blue Cross won't cover the cost.

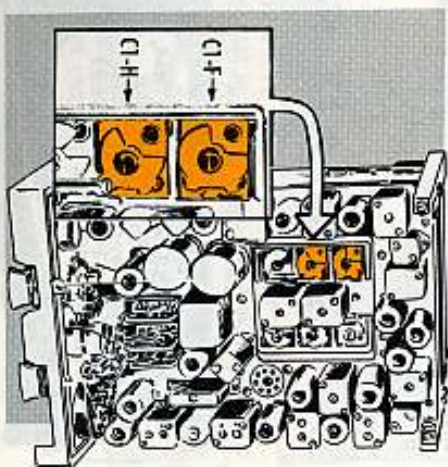
Blue Cross won't cover the cost.



mechanics with too much curiosity and not enough know-how.

A sure cure includes a couple' shots of common sense and a tick-tack-toe pad for idle hands.

Another way to shake the screw-driver habit is to call in direct support



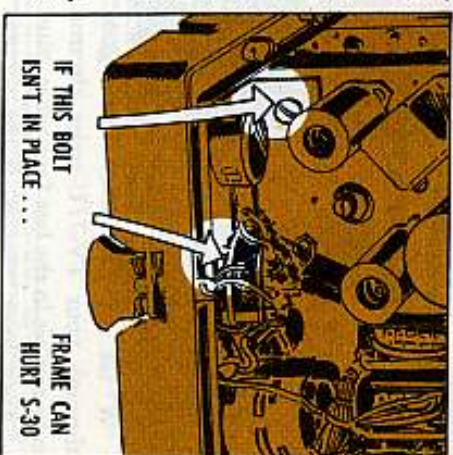
A companion disease is wrenchitis— use of a wrench to do unauthorized repairs.

On the RT-66 thru -68, the carrier of wrenchitis has a 50-50 chance of eliminating or spreading this disease.

Like, on the chassis bolts. You can tighten 'em if you find them loose when you're makin' an authorized repair. But you can't take 'em out. That's wrenchitis.

If this bolt isn't in place, f'instance, the frame can ride loose and bust the "H" out of the S-302 switch.

So . . . don't spread the disease. If you find a bolt loose, tighten it. Let your support decide that it has to come out. You might even let your support know



when you find a bolt missing.

And, Joe, if you're cured, spread the remedy to the next guy in line.

## SPARE THAT SOCKET

The adapters sure are well worth the "price," seeing's how the tubes go into them instead of being inserted directly into the test set sockets.

So . . . when you go to remove a tube, you do just that—leaving the adapter in the socket. And you want to leave the adapter in the socket as much as possible to save wear and tear on the socket.

The deal is that it's cheaper—from the standpoint of the work involved—to replace an adapter than it is to put a new socket in the test set.



There's some interesting reading in SB 11-494 (26 Jul 62) and TM 11-6625-274-20P (17 Jun 60).

Both pubs give the ESN's for socket adapters used with 7-pin miniature sockets on electron tube test sets like the TV-7/U, TV-7B/U and others.



# TUBE SAVER



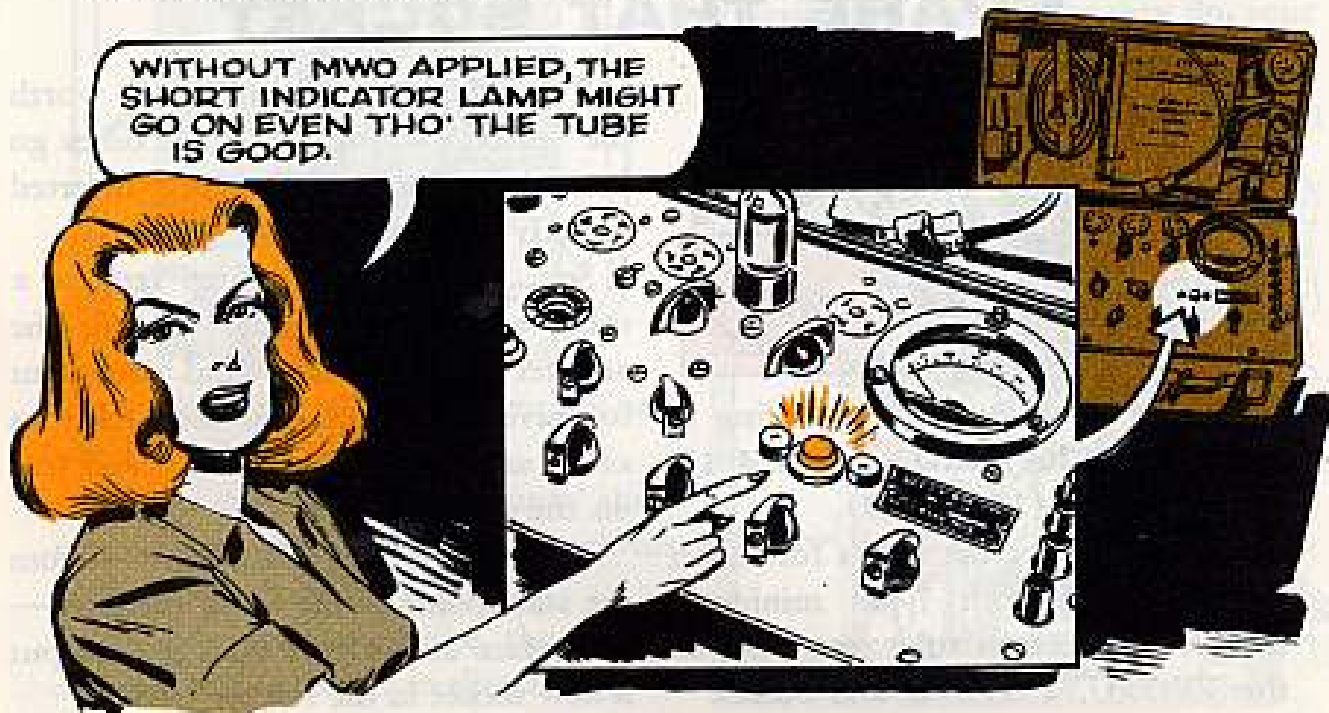
A lot of harmonics have gone through your TV-7/U-series electron tube test set in the last four years, plus.

They have, that is, if the support people haven't applied MWO 11-6625-274-35/1 (24 Jun 59) to your test set. And there're more'n a few test sets around that haven't been MWO'd.

What the modification does is install

a new capacitor and resistor to get rid of harmonics that develop inside the set when it's operated on input line frequencies higher than 60 cps.

Without the MWO being applied, the short indicator lamp might go on even tho the tube is good. So what happens? A tube that's working gets tossed on the junk pile.





**RECOMMENDED CHANGES TO DA TECHNICAL MANUAL PARTS LISTS  
OR SUPPLY MANUAL 7, 8, OR 9**

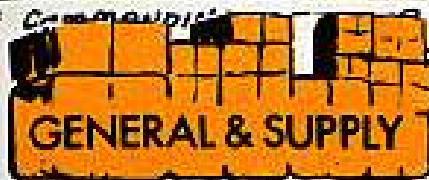
(Forward in duplicate to addresses listed in manual)

DATE

21 APRIL 64

TO: *COMMERCIAL*

FROM: (Activity and location)



**FOR YOU**



1. COMPLETE TM OR SM NUMBER AND DATE <i>TB 11-6625-274-12/1</i>	2. PAGE NO. <i>70</i>	3. EQUIPMENT a. END ITEM STOCK NUMBER <i>FSN 6625-376-4939</i>
4. FUNCTIONAL GROUP (Enter group(s), number(s), or IUF(s), under which item appears)		b. BRIEF DESCRIPTION

ACTION RECOMMENDED			
CHECK ONE	a. STOCK NO.	b. ALLOWANCE FACTOR	c. SOURCE, MAINTENANCE, AND RECOVERABILITY CODE (Where applicable)
ADD <sup>1</sup>	FROM	FROM	FROM
DELETE <sup>2</sup>	TO	TO	TO
CHANGE <sup>3</sup>			

IDENTIFICATION OF REPAIR PART	
a. STOCK NO. (FSC or Technical Svc) (if available); OTHERWISE LIST MPOR'S NAME AND PART NUMBER	b. BRIEF DESCRIPTION

7. DEMANDS FOR ITEM (Exact quantity of demands for item in each specific block for the number of days indicated)			8. TOTAL NUMBER OF MAJOR ITEMS SUPPORTED TO WHICH ITEM APPLIES
a. 30 DAYS	b. 60 DAYS	c. 180 DAYS	

9. JUSTIFICATION, REMARKS OR OTHER RECOMMENDATIONS (Brief and concise justification for recommended action. Any remarks or recommendations not covered, such as errors on illustrations, changes to maintenance operations covered in technical manuals and recommendations for changes to maintenance allocation charts)

*THE CORRECT SELECTOR SWITCH SETTINGS FOR TUBE TYPE 6245 ARE ETT-1265, NOT ETT-1625, AS INDICATED ON PAGE 70 OF ABOVE TB.*

You got an idea how to improve your equipment manual? Then you'll want to grab three copies of this form and put your idea down—use pencil, pen, or typewriter. You, yes, Y-O-U (no matter if you're a soldier with a rifle or a guy way back in a supply depot—from the operator to supply and maintenance) can use this form when you find there's an error, something's left out, or if you have an idea for improving your equipment manual. And this applies to your TM Parts Lists or SM, tech manual, tech bulletin, modification work order, lubrication order, or supply bulletin. The original and one copy will be forwarded direct to the activity responsible for preparing the manual. An information copy will go to your immediate supervisor (could be an officer, NCO, etc.). Be sure to fill in all the blanks that apply. Now, if you find something real hot in your manuals (emergency or safety) you use the fastest method (electrical message) to get the word to the commodity command—just like an EIR (DA Form 2407). See TM 38-750, para 3-7. 4a(7) for the scoop.

TYPED NAME, GRADE OR TITLE <i>HENRY P. PETERSON, CWO, COMM OFFICER</i>	SIGNATURE <i>Henry P. Peterson</i>
---	---------------------------------------

<sup>1</sup> Complete items 5b and c, 6, 7, 8, & 9.  
<sup>2</sup> Complete items 6, 7, 8, & 9.  
<sup>3</sup> Complete items 5a, b, or c, as applicable, and 6, 7, 8, & 9.



## THE PORTABLE



Where you mount the M11, 1½-qt portable decon depends mostly on what you're driving, and on what other kind of things you may have mounted on your equipment. But, you shouldn't have too much trouble finding a good spot for it if you keep this in mind:

The portable decon (for use on vehicles and crew served weapons) is a first aid kit which'll freshen-up your equipment if it should ever get spoiled by unfriendly chemicals and the like.

The M11 may be a midget-type decon, but it's got a long reach (6-8 foot spray range) and it'll help you decontaminate important things and areas like steering wheels, levers, latches, controls, door handles, knobs and other items which you must touch or handle when you have to get equipment going so's you can bug out of a fouled-up area.

In a word—the M11's gotta be handy, friend!

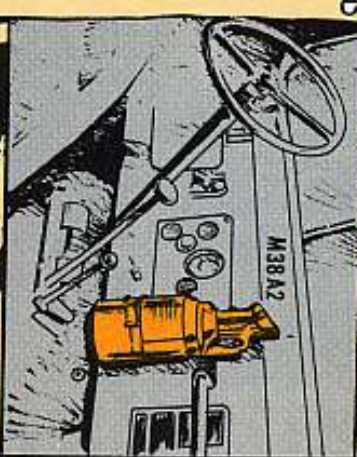
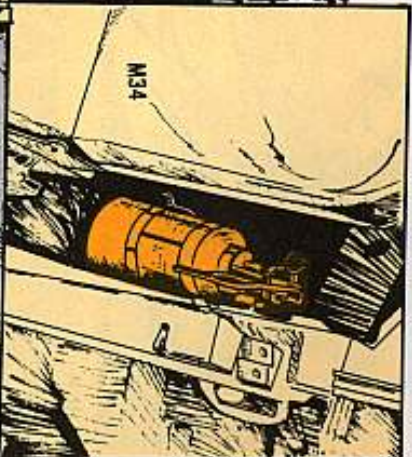
Here are some important things to keep in mind when you're getting ready to hang an M11.

## DECON



Here are a few sample locations you can check out for the M11:

Vehicle	Possible Location
M38A1 and M151, ¼-ton trucks	Center of dash (on M151 try for spot on dash where long-legged passengers won't dober it. Ditto M38A1, if it totes a wepcon or a welder).
M43, ¾-ton ambulance	Right panel forward of the door post.
M37, ¾-ton cargo truck	Left and rear of driver.
M35, 2½-ton cargo truck	Left panel forward of the door post.
M34, 2½-ton cargo truck	Left rear or right rear of driver.
M49, 2½-ton tanker	Left rear of driver's seat.
M135, 2½-ton cargo truck	Left rear of driver.
M109, 2½-ton van	Left rear of driver.
M41, 5-ton cargo truck	Left rear of driver.
M62, 5-ton wrecker	Left rear of driver's seat.
M123, 10-ton truck-tractor	Right rear corner of cab (driver must lower seat and reach across).
M47 tank	Rear of driver.
M48A2 tank	Left rear of driver.
M84 SP 4.2 mortar	Left rear of driver.
M113 personnel carrier	On forward radio rack support.



TM 3-4230-204-15 (Oct 62) tells you how to use and how to look after the M11. It also tells you in a bold type **CAUTION** that the M11's for cooling-off equipment and things... but, not for people. Repeat, the M11's not for deconning clothes or skin.



LUBED?



Most things need to be well lubed to work real slick and smooth.

Engines, f'rinstance.

Gunning an engine during warm-up before the surfaces of cylinders, pistons and rings get well oiled can rough 'em up and kill 'em young.

So you want to start at fairly low RPM, then roll the engine up to operating speed after the oil's flowing freely.

On some engines this is easy. But on some Military Standard Engines (like on your Winpower 1.5 KW generator, Model G-1536A-2A016-1, and on some compressors and pumps) the carburetor control assembly needs changing so you can warm up the engines at lower RPM than their governed speed of 3600 RPM.

Engines that need this fix, all covered by TM 5-2805-206-14 (Apr 60) are:

Model 2A016-1 3HP FSN 2805-601-5127.

Model 2A016-2 3HP FSN 2805-714-8553.

Model 1A08-1 1 1/2HP FSN 2805-601-5181.

Model 1A08-2 1 1/2HP FSN 2805-714-8552.

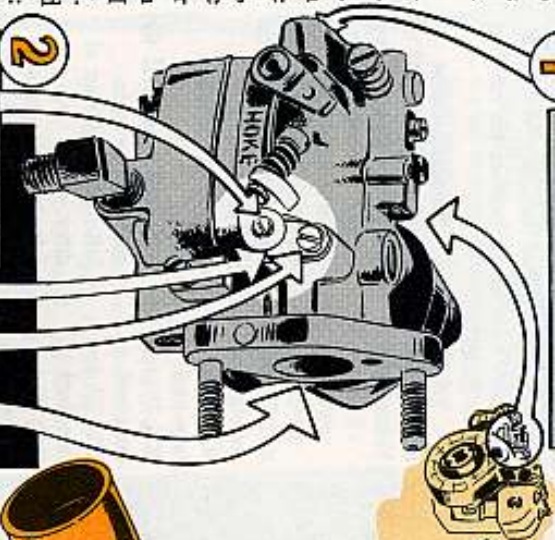
Parts you need to make the change-over come thru regular Engineer repair parts supply channels in a kit, Stock No. (81336) ERFPA2520, FSN 2910-064-5638, that should cost around \$1.25. Change 2 (18 Oct 62) to TM 5-2805-206-14 covers this carburetor control fix.

... WARM?



NOW YOU'RE READY TO INSTALL THE NEW PARTS.

1 Remove screw but hold on to it.



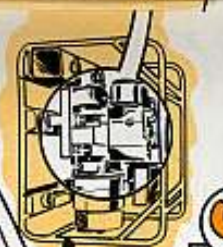
2 Remove screw and washer but keep these, too.

3 Remove and discard lever.

4 Also remove and discard screw and lockwasher.



5 Position carburetor control from kit, then re-install screw.



6 Install screw, from kit.

7 Place lever from kit on throttle shaft and re-install washer and screw. It takes about a half hour to make the switch.

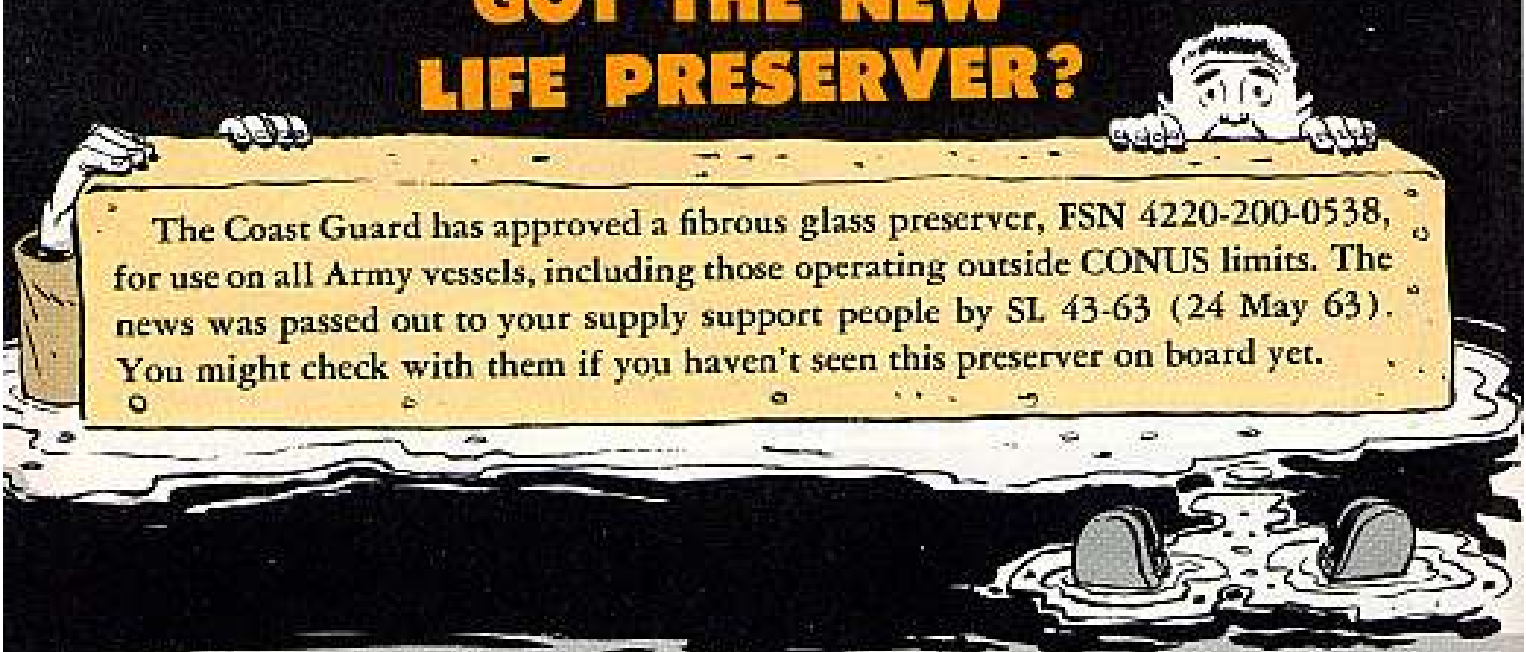
8 With this new carburetor control assembly installed, the engine should throttle down to low idle at 1800 RPM. If not, take off the carburetor and check the butterfly valve.

The valve should have a small hole in the top half. If there's no hole, drill one—1/8 inch in diameter as shown in item 6, Fig 22, of Change 2 to TM 5-2805-206-14. When you re-install the valve make sure the hole's at the top when the throttle valve is closed.

Now replace the carburetor and adjust it like it says in para 53a of the TM. The new carburetor control should help the engine's cylinders, pistons and rings to get well oiled during warm-up.



## GOT THE NEW LIFE PRESERVER?



The Coast Guard has approved a fibrous glass preserver, FSN 4220-200-0538, for use on all Army vessels, including those operating outside CONUS limits. The news was passed out to your supply support people by SL 43-63 (24 May 63). You might check with them if you haven't seen this preserver on board yet.

## WARRANTY NOTE



Sending in an EIR (DA Form 2407) on defective new equipment doesn't automatically take care of the adjustment claim to the manufacturer.

A quick follow-thru with a warranty claim is up to the unit which has the equipment when the problem's found.

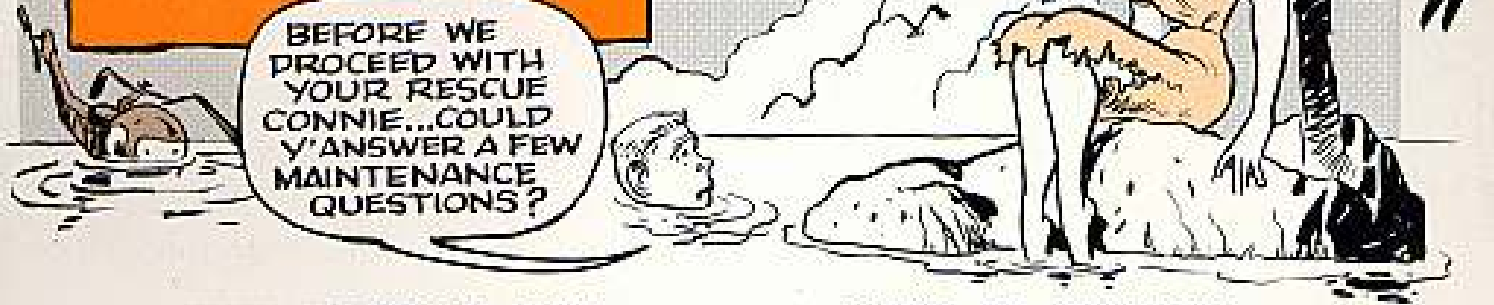
Log book equipment, covered by a warranty, will normally have its warrant info recorded in DA Form 2408-8 "Equipment Acceptance Record." If the info's missing, tho, it can be requested from the national support agency responsible for the item. Questions on an item's warranty should give the item's complete identification (make, model, serial number, contract number, plus any other helpful data from the data plates).

For general info on manufacturer's warranty on wheeled vehicles (Federal Class 2300-) see SB 9-98-1. You also want to read warranty instructions which come with new equipment, equipment decals, tags, data plates, etc.



# Connie Rodd's BRIEFS

BEFORE WE  
PROCEED WITH  
YOUR RESCUE  
CONNIE...COULD  
Y'ANSWER A FEW  
MAINTENANCE  
QUESTIONS?



## NEW ELECTRON TUBE

SB 11-564 (30 Aug 63) gives you the hot scoop on Electron Tube Type 8252/4PR60B (FSN 5960-889-4209). It's for use in Operations Central AN/MSQ-28 and the Improved Hercules Y-026, Y-027 and Y-175. It replaces tube FSN 5960-248-8493.

## CHANGING FORMS

DA Form 10-233, "Handreceipt for Expendable and Non-Expendable Items", is out as your interim handreceipt form. The short form's been superseded by DD Form 1150, "Request for Issue or Turn-in". See para 13c(1), Change 4 (27 Nov 63) to AR 735-35, for details on using the form as a handreceipt. And you can cross out Fig 6 in the AR.

## CAP-IT-ALL

Wonderin' how to keep dust, dirt and grime out of the power receptacles on your control boxes, amplifier and the J11-13 and J21-23 jacks on mounts used with the AN/VRC-12 and AN/PRC-25 series radio sets? Breathe easy. There's a new dust cap out that'll cover the receptacles you're not using. Figure how many you need and order them like so: Dust Cover, FSN 5935-958-4869. SB 11-578 (22 Jan 64) is your authority.

## MWO 55 MISPRINT

An MWO by any other number may still be the same MWO, but it sure is confusing when you've got two for one. MWO 55-1520-211-34/24 (23 Dec 63) showed up with the right number on the front cover . . . but the inside pages are incorrectly numbered MWO 55-1520-211-20/16. This is the one about repairing those elongated bolt holes on the Iroquois (UH-1A).

## TOSS THE HANDLE!

If the maintenance platform in your Aircraft Organizational Maintenance A, B, and C Tool Kits is short a carrying handle, don't sweat it. Just toss the other one. Handles aren't needed and new stands are being made without them.

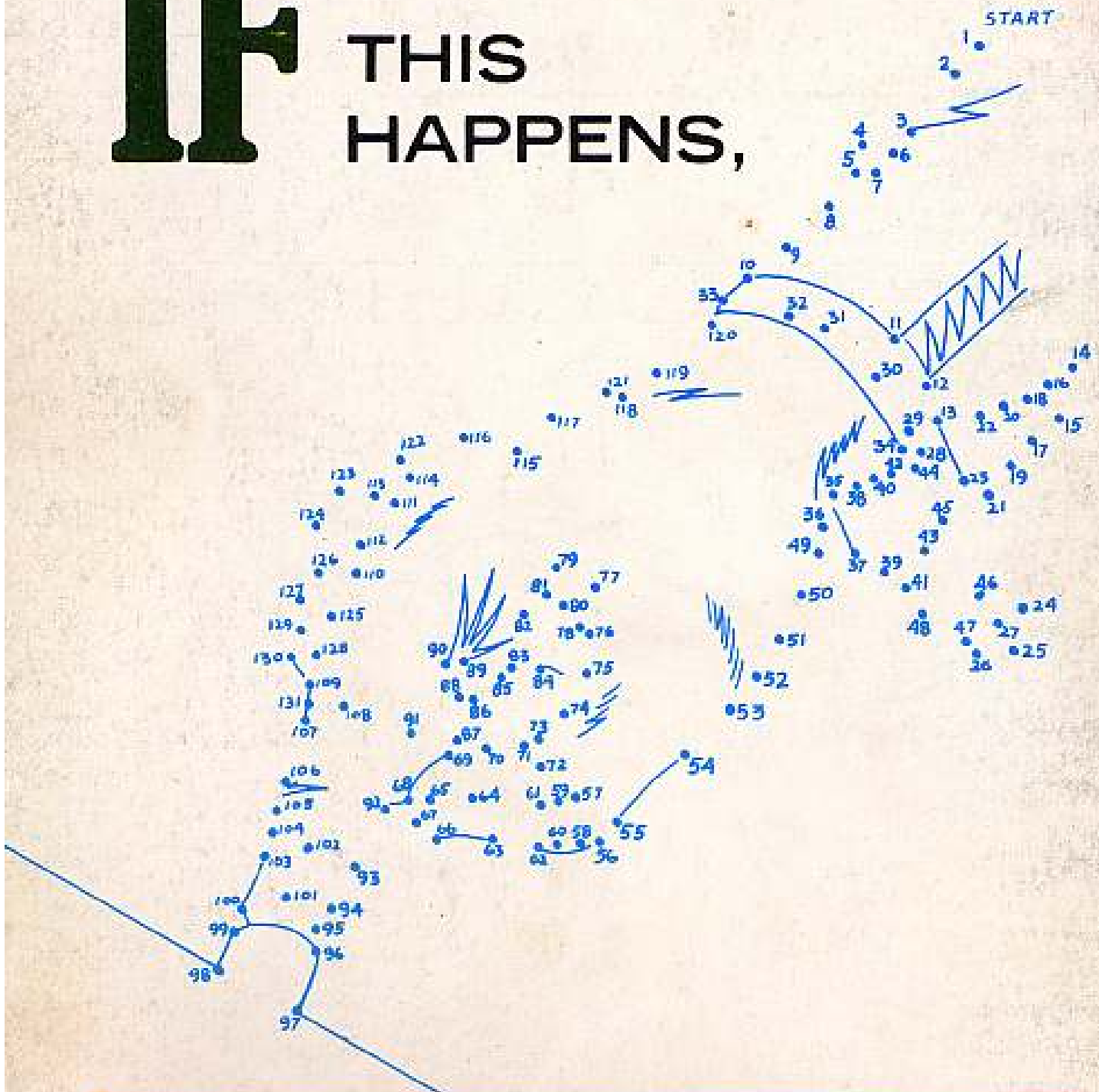
## HEY, YOU SUPPLY CLERKS!!

Got your newest copy of TM 9-2300-223-20P dated Dec 1963? Well, if you're turning purple trying to find the G863-series listing for the M35A1 2½-ton multifuel truck, you can stop. All 2½-ton models formerly identified as G863 have been merged into the G742 2½-ton series listing. Your latest Consolidated Authorized Organizational Stockage List of Repair Parts manual has it this way and so will all others that're to come.

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

INSTRUCTIONS: CONNECT THE DOTTED LINES AND THEN ASK YOURSELF:

**IF** THIS  
HAPPENS,



WILL MY EQUIPMENT  
BE READY TO GO?