



keep it up. F If not, now's the time to start. And

even for a day. The Daily PM Checks get with the job. and Services in your equipment's TM will be your guide. Look them up and Maintenance can't be forgotten-

Be ready for the next operation . . .



Issue No. 166 1966 Series THE PREVENTIVE MAINTENANCE MONTHLY IN THIS ISSUE

COMMUNICATIONS 2-15

AN/PRC-25 AN/TRC-24 Cable Connectors H-63/U Teletypewriter

TK-87/TK-88 Plasy4 AN/URC-10 1 Leaky SAS

CH-47 AIR MOBILITY 16-19 DA Form 2408-13



M60/M60A1 20-21 Battery Cable 22 GROUND MOBILITY 20-27 20-21 Vehicle Number 22 Lilling Shackles 00 Form 314 . 24-27

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DA Form 2527 UIC Info DA Ferrs 10-102 Van Beaters DA Cir 750-13 GENERAL AND SUPPLY

22222 Obrightssor 83 Infrared Shift 63 Tent Fit 64 Optical Inserts 64 Supply 3, 5, 7, 8, 10, 11, 12, 17, 20, 21, 55, 56, 57

Use of finds for printing of this publica-tion has been approved by Headquatter, Department of the Army, 19 February 1965. DISTRIBUTION: In accordance with re-quirements submitted on DA Form 12-4.



OS Magazine, Soft Half-Mast Part Knox, Ky.







Onward—to the main components of the PRC-25, the AN/VRC-53 and the AN/GRC-125.

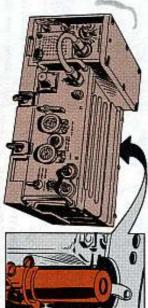
### ERT-505

A batch or two of the CX-4655/U special purpose cables that tie the RT-505 to the amplifier-power supply were cut a little short when they were made.



And, when you connect the components, that sharp U-bend pulls just enough cable to make the connectors less than waterproof.

So-o-o-o, if you can spot wiring when the cable's bent, a loop or two of insulating tape at the base of the connector should keep out moisture. It should serve in an emergency, till you can get a new cable.



The V1 (2DF4) tube, FSN 5960-892-3689, and transmission range depend pretty much on each other, so if you lose range, the tube is a good suspect. Fact is, you might test the tube periodically just so's you'll be sure you have range when you need it.



Main components or otherwise, voltage surge from the vehicle electrical system even gets to this set. There are built-in deterrents, like diodes and resistors, but there's still no sub that beats there's the set prior to starting and stopping turning off the set prior to starting and stopping vehicle engines.

Another safeguard: If you're using only one audio receptacle of the RT, keep the unjust two of the pins of the unused receptacle can put it out of business.

### AM-2060

The amplifier-power supply of the series rates a special few words.

Like, when you're using the VRC-53 or GRC-125 configurations, and you can't turn the radio set power on or off at the AM-1780 amplifier unless the power switch of the AM-2060 is first set to OFF. In which case, watch it!

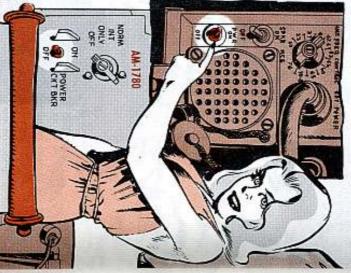
Get your direct support to update your AM-2060 pronto! The connector wiring in the rear of the amplifier has to be changed. Naturally, before you suspect the amplifier, make sure the link in your MT-1029 mount is set for remote operation (power control from the AM-1780, that is).

For the mount bit, see paras 4a and 4b of TM 11-5820-498-20.

If the AM-2060 wiring goes uncorrected, it can drain your vehicle battery.

rected, it can drain your vehicle battery.

To help you spot the problem makers, eyeball the purchase order numbers stamped on the nomenclature plates. Those involved are all amplifiers purchased on order number 15108-PP-62; about 2000 of the first batch of order number 5175-PP-64 and a few oddballs in other purchases.



If you're interested in heading off another problem area, remember to connect the CX-4722 cable to the antenna control at the rear of the AM-2060 and to the jack on the MX-2799 matching unit.

THIS IS
NOT A
NOT A
POWER SWITCH
OFF WITH
THIS SWITCH
ON
OFF
THIS SWITCH
ON
OFF
THE SWITCH
ON
OFF
THE

TROUBLE'S BREWING
IF YOU'VE GOTTA TURN
THE AM-2060 OFF
BEFORE THE AM-1780.

Forgetting the cable connections can load the amplifier just like you would the antenna. That kind of power rolling around in the AM-2060 instead of going out through the antenna is no good for the amplifier.

trying to turn the set off or on with the volume control switch of the RT-505, tell him he's stackin' hay power to the set is controlled by the Power to the set is controlled by the below the volume control.

against its stop can strip the knob repair shop.

### MISCELLANEOUS

If you've been
blearying an eyeball
over an FSN for the whip
section of the AT-892



The whip and flexible base are issued together, as one FSN . . . 5820-889-3803.

Here're a few other FSN's you might've been looking for:

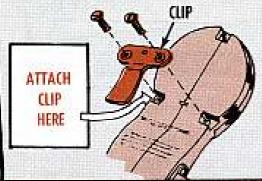
That previously hard-to-come-by O-ring for the U-182 connector of your



Mure .

H-138 handset (also for the new U-229 connector) now goes by FSN 5330-905-6032. It'll be included in a revision of TM 11-5965-257-20P.

Also scheduled for that revised parts manual is FSN 5340-999-2820, which gets you a belt clip and mounting instructions for the H-138. Meanwhile, SB 11-603 (4 Apr 66) is your authority.



The SB also authorizes an improved moisture shield, which comes 10 to a package. FSN 5965-857-1034 gets you the receiver shield, and FSN 5965-857-1036 is for the transmitter shield.





TRANSMITTER SHIELD

RECEIVER

They're made for rough use and/or moist climates.

If you're hurting for a shield, a piece of the plastic bag that the PRC-25 battery comes in make a good substitute.



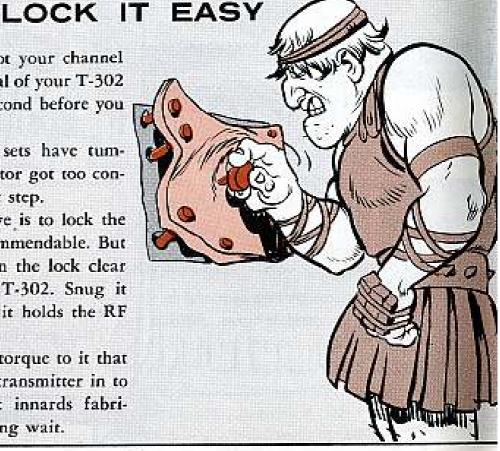


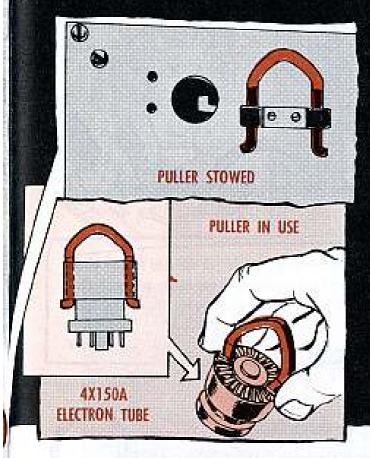
Next time you've got your channel with the RF channel dial of your T-302 transmitter, think a second before you follow through.

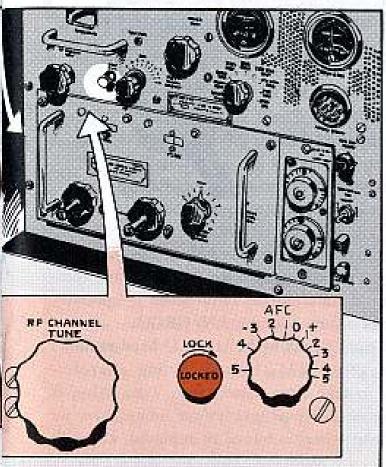
AN/TRC-24 radio sets have tumbled because the operator got too conscientious on that next step.

Like, your next move is to lock the channel dial. Fine. Commendable. But you don't have to turn the lock clear off the panel of the T-302. Snug it down enough so that it holds the RF channel dial firm.

Don't put so much torque to it that you have to turn the transmitter in to have its channel lock innards fabricated. It could be a long wait.







### TOOTH? — NO, TUBE

Don't play dentist when you're pulling a 4X150A electron tube out of your AN/TRC-24 series radio or terminal set for testing . . . keep those needlenose pliers out of the tube's heat vanes.

Your best bet's to use tube puller (FSN 5120-293-2699), because those pliers'll pinch the vanes together. Then, the first time power's put to the tube, it can overheat and be damaged.

Take, f'rinstance, the 4X-150A in the driver assembly in the lower chassis of the T-3020/TRC transmitter.

Remove the driver compartment cover, push the puller or extractor through the heat vanes of the tube and gently pull out.

Just make sure you're using the tube puller that's clipped to the side of the AM-915()/TRC, AM-1178/GRC or AM-1180/GRC radio frequency amplifier multiplier. It's made for the job.



Dear Half-Mast,

My outfit's having a rash of lost rubber moisture seals (O-rings) from their U-182/U and U-229/U cable connectors on the H-138/U handset. I can't find a replacement for this O-ring and without it moisture can seep in and cause intermittent communications problems. Can you help us with this?

SFC F. J. W.

Dear Sergeant F. J. W.,

No sweat. FSN 5330-905-6032 will get it for you. In fact, the O-ring fits all U-182/U and U-229/U connectors, like, f'rinstance, those on the M-80 microphone and H-161, MK-525/G and MK-526/G head-set-microphone. The stock number is getting added to parts manuals or to the functional parts lists of the basic TM's.

To keep the O-ring in place . . . and to lengthen its life . . . give it a light coat of silicone compound, FSN 5970-224-5277.

Half-Mast

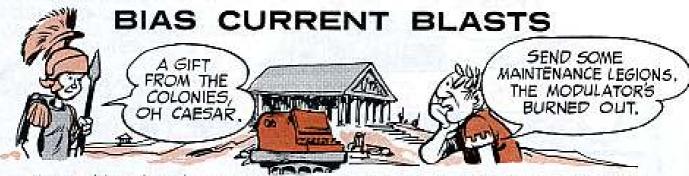


### FOR A HEALTHY HEADSET



What with the push on for new FM-series equipment and such, things are getting a bit tight on replacing components of the old standardized radio series—'specially audio accessories on sets like the AN/GRC-3.

In the "real tight" class is the H-63/U headset-mike. Give that baby plenty TLC, because getting a replacement is going to take time, time, time, Tom. Also, if that little joker needs repair, get it done now. Never let it get to the point where it has to be replaced. Like, it's tight.

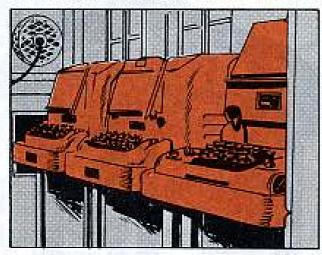


Funny thing about bias current and radio-teletypewriter sets. If the bias supply is set too high, it can burn out the modulator of your set.

F'rinstance, whether you're working with an AN/GRC-26D, an AN/VRC-29 or an AN/GRC-46, the bias current should measure 60 milliamperes.

Since all sets use the TT-98 and the TT-76 teletypewriters, a coupla' pertinent paragraphs in appropriate TM's should straighten you right out — especially

if radio repair is your specialty and teletype work isn't.

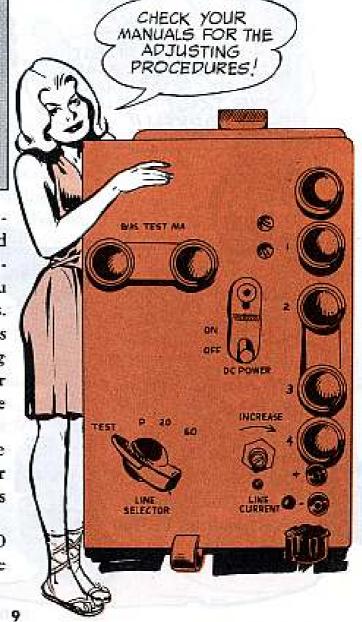


Para 2-8c and fig 2-7 in TM 11-5815-238-12 (Dec 65) on the TT-76 and para 2-13 and fig 2-9 in TM 11-5815-200-12 (Feb 66) on the TT-98 fill you in on quick bias adjusts on the teletypes.

It's a must to make the adjustments at initial installation, when changing from commercial power to another source, or after any adjustment of the power supply.

In addition to the method in the TM's, you can use a TS-352 multimeter by placing the probes across the bias terminals.

Place the TS-352 setting in the 100 MA range, and adjust the bias of the TT's to 60 MA.





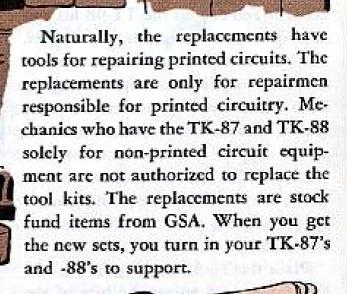
That 4-in by 14-ft rubber bandage in TE-16 tool equipment, which is part of TE-56 tool set for cable splicing, still goes by FSN 5970-238-4862. Until an updated SC 5975-91-CL-CO1 (Feb 65) comes out changing the description from the "¾ in by 50 yards" that's listed there, you can get the bandage by asking for INSULATION TAPE: electrical, non-adhesive, in C5970-IL-A (Aug 65).



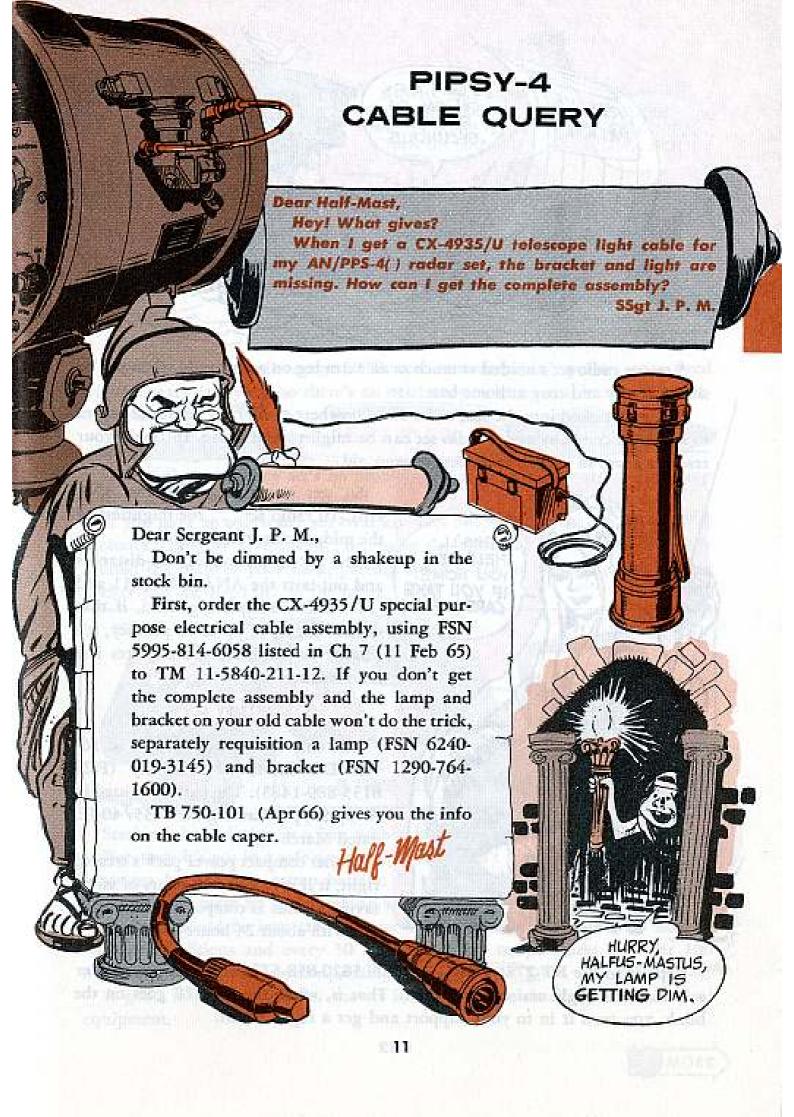
IF ELECTRONIC EQUIPMENT REPAIR'S YOUR GAME, AND PRINTED CIRCUITS MAKE YOUR TK-87 FEEL LAME...



SB 11-604 (23 Feb 66) authorized replacing your TK-87/U, FSN 5180-690-4452, and TK-88/U, FSN 5180-893-1389, tool kits with the TK-105/G, FSN 5180-610-8177, and the TK-100/G, FSN 5180-605-0079. You get the TK-105 for the TK-87 and the TK-100 for the -88.



NEED NEW TOOLS FOR REPAIRING THIS NEW EQUIPMENT!





RESCUE, MARCUS ANTONIO SHE'SA HOME EEN

I'MA SICK

ONNA US LIKE A

PEEDGE

A rescue radio set's needed as much as an extra leg on a centipede when you're sitting comfy and cozy at home base.

But, get dunked into the sea, miles from nowhere, with only oddles of waves to keep you company and a radio set can be mighty comforting. It'll help your rescuers beam in on you and come to your aid.



So, get acquainted with the AN/ URC-10 radio set . . . the mightiest of the midget class rescue radios.

The URC-10 out-does, out-distances and out-lasts the AN/URC-4, -11 and -14 which it's replacing. And, if that doesn't perk you up to its potency, it's smaller and lighter, and requires less maintenance.

### BATTERY ISN

The only replacement item is its 16-volt DC BA-1387/U battery (FSN 6135-889-1485). The battery's listed in Army Supply Catalog SC 6135/40-IL, dated March 1965.

If that compact power pack's treated right, it'll give you 120 hours of sweet saving sounds as compared to the other sets with about 24 hours of life.

Repairs to the RT-278()/URC-10 (FSN 5820-858-5721) receiver-transmitter are made through maintenance float. That is, when the RT-278 goes on the blink, you turn it in to your support and get a replacement.

The Urk-10, a 30-mile range UHF receiver-transmitter, operates on a fixed 243.0 megacycle crystal, so there's no need to open 'er up and break the water-tight seal.

MARKINGOIONIA



Storing the emergency set's no problem for high flying air-types. Just keep it from under foot and near at hand.

If you have an overwater survival kit (LIN 561568) like the one in the OV-1 Mohawk, snuggle it inside...or, hang the electrical power cable assembly around the back of your neck, putting the RT-278 in one life jacket or vest pocket and the BA-1387 in the other.



Stashing the radio set in a bag with a life raft's another good storing place.

But, once it's put in a safe and handy place, don't forget it's there. 'Cause a forgotten battery is a rotten battery. In time it'll corrode, break and spew, damaging the radio set and anything with which it might be stored.

The set should be inspected at least every 90 days under cold or normal weather conditions and every 30 days where the temperatures get over 100 degrees or the air is damp, damp, damp.

A good inspection time for the set is when you're checking other survival equipment.

Speaking of inspections, here's a few pointers you can watch to help spot





AS VOLTS
BATTERY BAY
MALLORY TYPE 503/60
POG USE WITH
MYJERC-10 RADIO NET
CROSE NO
CODE
ER, MALLORY BAL SAL
N. TARRYTHING BY

BA 1387/U

BATTERY

ON-OFF SWITCH—Cracked, broken, loose.

CASE—Dusty, dirty, dented, cracked, mildewed, corroded, rusted; watertight seal loose, cracked.

IDENTIFICATION PLATE—Dirty, missing, scratched, unreadable.

SPEAKER-MICROPHONE ASSEMBLY —Cover torn, cracked.

CABLE-Loose, cracked, connector bent, corroded.

There aren't any Army technical pubs on this Air Force AN/URC-10 now. Publications covering the radio set are Air Force T.O. 12R2-2URC10-2 and T.O. 12R2-2URC 10-4, both dated Feb 64; T.O. 12R2-2URC10-2C (Mar 65) and T.O. 12R2-2URC10-2S-1 (Oct 65).

However, TM 11-5820-640-13 will be coming along later.

ANTENNA—Bent, broken.
Always push the antenna in straight. Forcing it back in at an angle can damage the innards of the ON-OFF switch.



RT-278

RECEIVER-TRANSMITTER

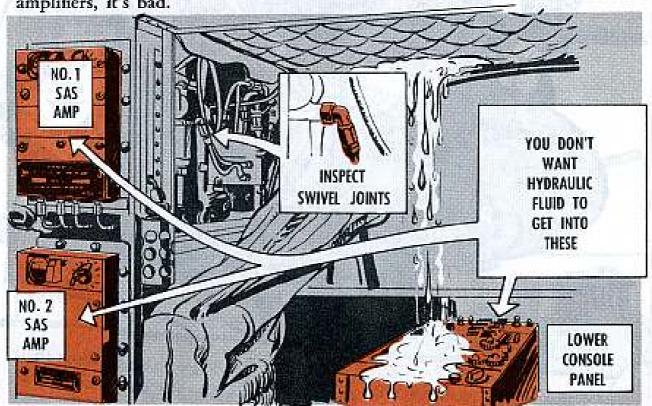


A leaky or drippy spigot can be mighty irritatin' . . . but it won't get next to you half as much as a leaky hydraulic line in the SAS (Stability Augmentation System) of your Chinook (CH-47).

If the side or overhead padded lining is spotted by fluid, you know there's trouble dripping.

Inspect the cable's swivel joints and keep an eye peeled for SAS line leaks.

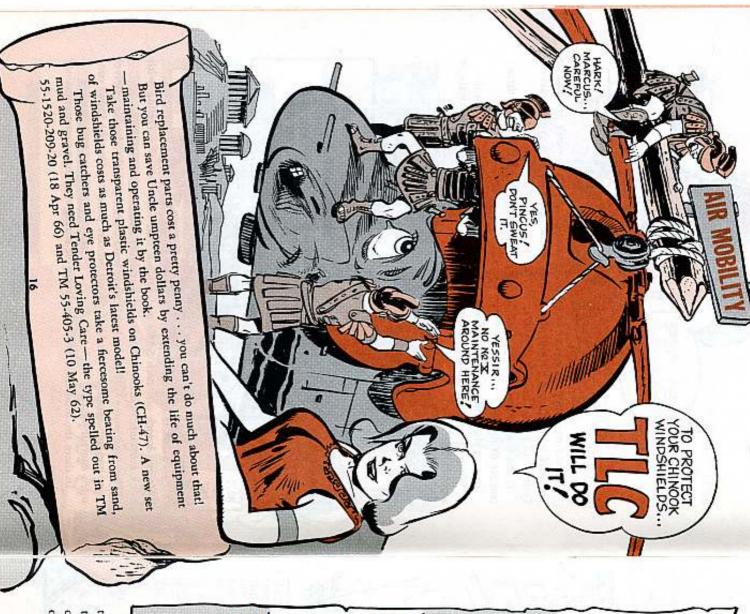
When that oozin' fluid gets into the variable resistors of the SAS facility's amplifiers, it's bad.

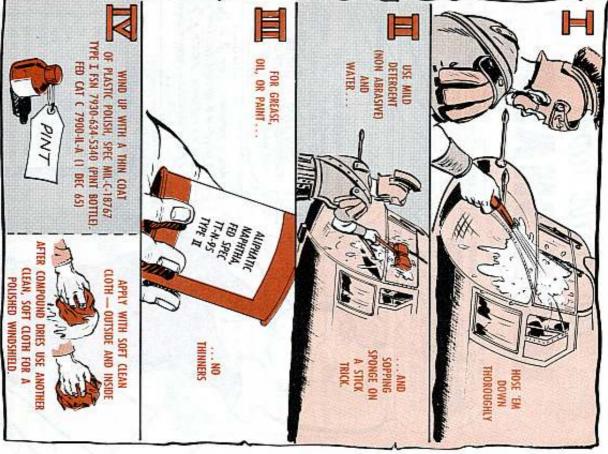


It can knock out both SAS's and replace that feathery flying feeling with more movement on the controls and a rougher ride.

But, even worse . . . that hydraulic fluid leaks from the overhead cable's swivel joint and gets inside the overhead circuit breaker panels or into the lower console's control panel.

In there the fluid can eat the insulation off wiring and cause communications failure.





50-0-0-0 . .

TLC really pays dividends when you use the windshield wipers for the job they were designed to do. To guard against scratching the plastic (or glass for that matter) never run the wipers on a dry windshield. Even a windshield covered with morning dew doesn't call for wiper action . . . use your defrosters or clean 'er by hand.

### LOOK SHAR FOR 'STATUS TODAY'

BEFORE YOU TRANSCRIBE STATUS SYMBOLS FROM BLOCK IG OR FROM DA FORM, 2408-14) 2408-13, LOOK EXTRA SHARP CHIEFS OR MECHANICS WRITE WHEN YOU CREW TO BLOCK T!!

4264.00 60-3505 U.P. BELL 0:00 MENT INSO 3 412690

KART VONE NEEDY TARA

1 7 7

DED TOTAL

THERE ARE FOUR
COLUMNS IN BLOCK 7 WHERE
A RED STATUS SYMBOL FROM
BLOCK 16 (OR DA 2408-14)
CAN LAND-- UNDER
"AIRCRAFT," "ELECTRONIC,"
"ARMAMENT" OR "OTHER."

When it doesn't affect air

And, when it doesn't affect

B DAILY INSPECTION S.P. Bell CABIN HEATER PAINT CHIPAED VHF ANTENNA BENT J.P. BALL AN/ARC-44 INOPERATIVE & P BELL FAULTS AND OR REMARKS

DA Form 2408-13

JOB JOB NOT WHAT WHERE

safety — such as sidelooking pose not connected with flight veillance or some other purelectronic gear used for sur-7 you put the status symbol airborne radar, camera or in for the most serious tout on fly without em. trared equipment. The bird can Under "electronic" in block

> CABIN MEATER PAINT CHIPPEL out fault on the gear that gives status symbol for the most sericraft flight safety, you put the "armament." The bird can fly the aircraft firepower under would go under "other." aircraft flight safety, the status

without it.

any status symbol from block 16 (or from DA 2408-14) to block 7. That's one of flight" item in the TM. Bounce that through your bean any time you transcribe reason why you need an exact description of the fault in block 17 (or in column b flight safety of the aircraft if it would damage or interfere with the proper of DA Form 2408-14). functioning of items necessary for flight safety, even if it's not listed as a "safety It's possible that any equipment might have a fault that would affect the Nuf said? Not quite.

Downgrade faults that affect flight safety and your bird may come smash-

communications equipment and radar used for So, you always check on all the gear that gets land. That means you check status symbols on the bird into the air, keeps it up and helps it to the most serious fault to enter under "aircraft." fly must be checked out to pick the symbol for landing - even though they're electronic items Everything that affects that bird's ability to

ANY OF THE FAULT ENTRIES LESS SERIOUS THAN A CIRCLED RED X MAY BE FOUND ON DA 2408-14.

B DAILY INSPECTION ANIARC-44 INOPERATIVE J. P. Bell FAULTS AND/OR REMARKS J. P. Bell

WILL SELL TO COMMENCE ONLY WALL TO CH HELICOPTER UH-18 6.NX66 60-3505 DA Form 2408-14 17.

symbol for the most serious fall in the first three columns tault on any gear that doesn't

19

8

VHF ANTENNA BEN

### MOBILITY A

M60/M60A1 & M48A3 TANKS

# The turret seal on your tank really

with the seal inflated. Para 2-24 of TM takes a beating if you rotate the turret 9-2350-215-10 (Feb 65) gives you the dope on this.

guard against-water trapped in the do to keep the water out: inflation system. Here's what you can But there's something else you should



### MANEUVER

(T118E1) combat engineer vehicle, this is for you . . . If you have an M60/M60A1 or M48A3 tank or M728

tor boot so they can get at the generator mounting nuts without having to take off the hose clamps. Some mechanics have been cutting a slit in the genera-

cut to trouble. Making this short cut in the generator boot is a short

this'll happen. pour through a cut in the boot into the air inlet and flood generator when you have to ford. Even worse, water can your tank. The deeper the water you ford in the quicker With the boot cut this way water can get into the

INSTALLATION GENERATOR REMOVAL AND

THESE.

THE POOP ON YOU'LL FIND



new one - FSN 2990-771-6969 will do it. So-o-o-o, if somebody has sliced up the boot order a

0

cm closed



TM 9-2350-215-20

20

M60/M60A

 After you finish letting all the air out of the turnet seal, leave the bleed valve open



2. Work the hand air pump a the pump or in the seal moisture that might be in few times to force out any





4. Close the turret seal bleeder valve out of it. when no more air or moisture comes



Wire or tope the hand pump handle moved by accident but can easily be lightly in place so that it can not be worked when you want to use it.



# AMMO RACK ROUNDUP



tanks is to keep 'em closed except when rack handles on your M60 and M60A1 you're putting in or taking out a round. The right way to handle the ammunition

For why?

gets caught against the turret basket, when you traverse the turret and a handle the open position get broken. This happens For because handles flopping around in

be going off. So get into the habit of keeping bouncing around inside your tank and maythe only sate way to keep the rounds from So you do on account of these handles are SHORT ON PARTS ARE ALREADY OR HANDLES DRDER アメタロ

So who needs 'em?

Left handle, FSN 2590-909-2499.

Right handle, FSN 2590-909-2497.

Parts kit, FSN 2590-909-2498.

TOTAL STREET

### THE CABLE GOES UNDER THE NUT

TM pictures of battery cable-to-clamp hookups show Dear Half-Mast, some connections with the cable terminal under the nut and others show it under the bolt head. Which is the preferred hookup? SFC G. A. F.

Dear Sergeant G. A. F.,

The battery cable-to-clamp connection may not loosen quite as easily with the cable terminal under the bolt head, but under the nut is preferred. This's because you don't have to drive the bolt out for servicing the clamp. Besides, with the cable terminal under the head, the clamp tends to get mashed out of shape when the clamp nut's tightened. This makes it rough getting the bolt out without battering the clamp more.

TM's show both hookups in certain cases, because the layout of cables and the working space sometimes make under-the-head more practical.

Connections won't likely loosen up if cables are the right length, the right size wrench is used to tighten the nut and the cables aren't yanked up and Half-Mast down to test for tightness.



Dear Half-Mast,

How do you number vehicles in order of march — trucks and their trailers with the same number, or in sequence? That is, would a truck in a convoy be, say, Number 3, and its trailer 3, or the truck 3 and the trailer 4?

Sgt J. A. L

Dear Sergeant J. A. L.,

Here's how I see it:

TB 746-93-1 (Oct 64) says the vehicle number should be its sequence number in the normal order of march in the unit.

AR 320-5 (Apr 65) says a trailer is a vehicle.

IF IT'S OKAY, SIR!

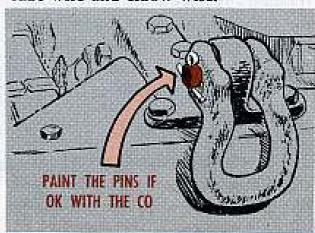
Therefore, you'd give the trailer the number after the number of the truck normally pulling it.

### PAINT THE PINS

You're making some trouble for yourself if you mix up hinges and latches with lifting shackles and sling points—at least when you're reading LO's.

The pins in the lifting shackles and sling points don't really need to be greased periodically. A paint job will do just as well according to para 66, TM 9-273, "Lubrication of Ordnance Material." This paragraph points out that parts such as these pins don't move around much—so they don't need

lubrication. If it's OK with the CO, just paint 'em and save some grease—lube-wise and elbow-wise.



> MEEK DAYS ONLY 0900-1600

aa

314 :::

Q. WHO, AFTER THE COMMANDER, SHOULD BE RESPONSIBLE FOR MAINTAINING THE DD FORM 314'5?



A The person to supervise keeping of the DD Form 314's is the man who's in a position to keep tabs on operations, training and maintenance. He could be the maintenance officer, motor officer, motor sergeant or someone else in a supervisory job. Or he could be someone who works directly under one of those supervisors.

What's important is coordination—making sure equipment's not scheduled out for training or routine mission operation at the same time it's due for periodic maintenance service.

HANDLE PART OF THE PERIODIC SERVICES (SUCH AS QUARTERLY AND SEMI-ANNUAL) ON A COMPANY'S EQUIPMENT, WHO KEEPS THE 3/4?



Para 3-3b(2) in Ch 2 to TM 38-750 says the DD Form 314 is maintained by "the commander having responsibility for the periodic service."

In cases of separate responsibility for split periodic services, you'll need duplicate 314's for smooth scheduling of these services.

And duplicate 314's help your commander to determine when equipment will be available and to keep informed

on the scheduling and accomplishment three different major components whose of periodic services. After all, no matter who actually performs the PM servegets a 314.

But, even in this case only one 314 is required if services for components can be performed at the same time (or within a 10 percent factor).

ices, like tool calibration.

when direct support does certain serv-

Duplicate 314's may be helpful too

sure these services are performed.

ices, the unit commander has to make

OR IS IT ERASED?

A. If you do the service inside the 10 percent leeway factor, the pencilled

Major component of an end item?

Pa-Yes, if the TM for that component calls for periodic services.

Frinstance, the AN/MCC-6 tele-

graph-telephone terminal has at least

25



entry stays. This is because the 314 has to show scheduling of the next PM service from the pencilled entry date.

But, if the service was performed outside the 10 percent factor, you can crase the pencilled entry. You schedule the next PM service from the date when the service was actually done shown by an ink entry.

Q. IS THERE ANY SYMBOL
AUTHORIZED FOR THE
DD FORM 314 TO ADVISE THE
MAINTENANCE SHOP OF THE
SPECIFIC L. SERVICE THAT'S
OUE? OR DOES THE SHOP
HAVE TO WAIT FOR THE
EQUIPMENT AND LOGBOOKS
TO FIND OUT?

POR POES THE SHOP HAVE TO WAIT FOR THE EQUIPMENT AND LOGBOOKS TO FIND OUT?

A. The examples on pages 3-4 and 3-5 in Ch 2 to TM 38-750 and on page, 8 in DA Pam 750-38 (24 Aug 64) show that additional information can be written in the "remarks" space; no other symbols are authorized.

Since you prepare the DD Form 314 in advance (at least 1 month), if you specify the lubrication service it will allow the shop to organize its men and equipment before the equipment arrives to be serviced. This increases shop efficiency and results in equipment getting back to the unit faster.

There is no other space for "remarks," tho, so remember to keep it short.

Q. WHEN VEHICLE L SERVICES
AND S SERVICES ARE
PERFORMED AT THE SAME TIME,
AS RECOMMENDED BY THE LO,
CAN THE SYMBOLS LAND'S BE
ENTERED IN THE SAME BLOCK
ON THE 314?

THE EQUIPMENT GET UNNECESSARY

CALLED FOR IN THE L SERVICE
IF IT'S NOT POSSIBLE TO
PERFORM S AND L SERVICES

AT THE SAME TIME, WON'T

SOME OF THE LUBING CALLED FOR IN THE S



S and L in the same block. When L services are scheduled at the same time as other periodic services, which is recommended when possible—the L symbol won't be needed; just enter the Q or S or whatever authorized symbol is appropriate for the PM service scheduled.

The DD Form 314 is not an historical record of services performed, but the DD Form 2408-2 is, so the 2408-2 shows a complete record of L type services performed.

If required for local use, the remarks section of DD Form 314 may be used for recording that an L service on a given date was, or is to be, accomplished at the same time as an S or other service.

you lube just as the LO calls for it.

al Depending on which equipment's he involved and what's called for in its L2 LO, usually you can do some or all of the six-month L services along with the S services spelled out in the TM. The ks most practical time is when lubes are ed changed for the seasons, about six a months apart.

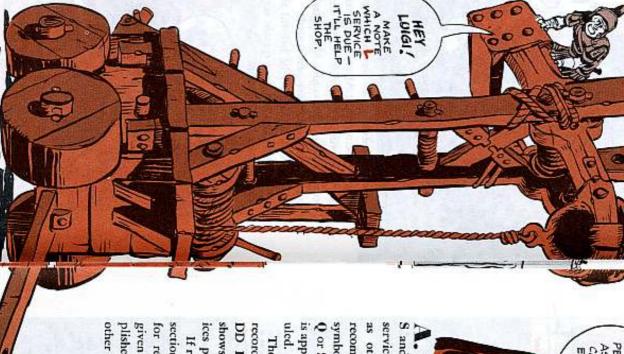
shows it's needed, like the TM says But there's no "if" in the L service . . .

formed at the same time as the L service, you do S lubing only if inspection

When the S

service is not per-

This is real easy to schedule for L services that come "semi-annually or 3,000 miles," the same interval spelled out for S services. L services that come "1,000 miles or 6 months" and "6,000 miles or 6 months" can be worked in with S services too if mileage doesn't come first and upset this setup. The 10 percent leeway may help you get 'em together.



D

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

### TECHNICAL MANUALS

TM 1-10H-23C-4-20P, C2, Apr. OH-23.

TM 5-4110-209-15, Mar. Refrigeration Unit, Machanical: Panel Type; Field Portable 150-Ce Ft Capacity, KECO Model F-5000R.

TM 5-4120-234-25P, Moy, Air Conditioner, Skid Mtd. Air Cooled; Electric Motor Driven; AC, 208 V, 3-Phone, 60 Cyc. 36,000 BIU (Redmonson Model CE-36M).

TM 5-4320-233-25P, Apr. Pemp, Centrilugal, GED, Skid Mounted, 6-Inch, 1, 120-GPM Self Priming (Corver Model).

TM 5-6115-340-25P, Apr, Generator Set, GEO, 5-KW, AC Single-Phone 120/240-V, 3-Phone 120/208-V, 400-Cycle, Skid Mounted (Hol-Ger Model CE-57-400AC).

TM 5-6230-204-15, Mor, Searchlight, Xenon Type, Infrared and Visible (FSN 6230-740-3280) VARO 9910, 9910A.

TM 5-6675-244-15, Apr., Target Set, Surveying: Circular Level and Optical Plummet In Tribrach W/Quick Release Mechanism (Wild Heerbrugg Model T-2).

TM 9-1005-247-12, Apr. XM2.
TM 9-1005-212-12P, C1, May. Organizational, Gens. Machine,
M1917A1, M1919A4, M1919A6
and Mounts.

TM 9-1430-510-15P/1, Apr., Howk. TM 9-2300-216-10, C7, Moy. Gun., Self-Propelled, M107, Howitzer M110. TM 9-2300-216-20, C3, Moy. Organizational, Gun, Self-Propelled M197, Howitzer, M110.

TM 9-2300-223-20P, C2, May, Stockage List of Tan-Automotive Repair Parts.

TM 9-2320-222-10, Apr., Recovery Vehicle, M88.

TM 9-2320-224-10, C3, Apr. Operalor, Carrier, Personnel, M114, M114A1.

TM 9-2330-271-14, Apr., All Missile Systems (5).

TM 9-2350-217-10, C2, Apr. Operotor, Howitzer, M108, M109.

TM 9-4935-500-15P/1, Apr. Howk.

TM 9-6920-375-12P/1, May.
Pershing.
TM 9-6920-461-12P, Apr. ENTAC.
TM 9-6920-471-12P, Apr. GML M-22.
TM 10-500-11, C1, Mar. Airdrop of
Supplies and Equipment: Rigging
M37 ¼ -Ton Cargo Truck and ¾ -Ton
Emergency Repair Shop Truck.
TM 10-300-23, C1, Apr. Airdrop of
Supplies and Equipment: Rigging Road
Graders.
TM 11-130-236-258 Nov. Character
TM 11-130-236-258 Nov. Character

TM 11-6139-236-25P, May, Charger Battery PP-1451/U.

TM 11-6625-355-12, May, Audio Oscillators TS-421/U and TS-421A/U. TM 11-6675-203-12, Apr. Viewer. Stereoscopic Ball Film, Photographic Interpretation AR-90A.

TM 11-6730-200-25P, May, Viewer, Still Picture AR-10(1). TM 55-1000-209-12-2, May, Opera-

tor, Carrier, Personnel, M113. TM 55-1510-201-10CL, CI, May, U-B. TM 55-1510-701-20PMD, May, U-B.

TM 55-1510-201-20PMI, May, U-8. TM 55-1510-201-20PMP, May, U-8. TM 55-1510-202-10CL, May, O-1A.

TM 55-1510-202-20PMD, Mey, 0-1A. TM 55-1520-206-20, C7, Mey, OH-23,

TM 55-1520-209-20, C1, Apr., CH-47, TM 55-2320-223, 10-1, Apr., Operator, Cerrier, Cargo M116.

TM 55-4920-231-15, C1, Apr. Fixed and Botor Wing.

### MODIFICATION WORK ORDERS

MWO 9-1240-214-50/1, May. Riflo. Becomers, 105MM, M40A1 on Mt. M79.

MWO 9-2300-224-30/21, Apr. Orgonizational, Carrier, Personnel, M112,

MWO 9-2350-215-20/24, CI, May, Organizational, Tank, Combat, 105-MM Gun, M60A1,

MWO 9-2350-217-20/7, May, Howitzers M108, M109.

MWO 10-1670-215-20/4, May, Organizational, Farachule, Cargo, MWO 55-1510-202-34/9, May, Elimination of Arming Cords on Canapy; and Change in Packing Procedures.

and Change in Packing Procedures. MWO 55-1510-206-34/63, C1, May, CY-2.

MWO 55-1510-206-34/70, C1, May, CV-2.

MWO 55-1520-202-34/6, C2, Jun. CH-34,

MWO 55-1520-209-20/41, C1, Jun. CH-47: MWO 55-1520-209-34/82, C1, Jun. CH-47. MWO 35-1520-209-34/118, Jen. CH-47. MWO 55-1520-211-30/4, Moy, UH-1A, UH-18. MWO 55-1520-211-34/38, C2, Jun.

### TECHNICAL BULLETINS

UH-1A, UH-18.

TB 9-1400-299-10/1, May, Missile and Backet Systems Equipment Improvement Report and Maintenance Digest,

TB 9-1400-549-10/1, May, Missile and Rocket Systems Equipment Improvement Report and Maintenance Diagram.

TB 55-1510-204-30/2, Jun, OV-1, TB 55-1510-205-30/1, Jun, U-1, TB 55-1510-206-30/6, Jun, CV-2, TB 55-1520-211-20/6, Jun, UH-1A, UH-1B.

18 55-6650-300-15, Jun, Fixed and Rotor Wing,

### MISCELLANEOUS

AR 705-19, May, Electrical Systems in Motor Vehicles.

AR 750-32, May, . Ir Delivery, Parachule Recovery and A. croft Personnal Ejection Systems,

DA Cir 385-12, Jun, Safe Operation of Truck, Utility, ½-Tan, 4x4, M151. DA Form 3122, Apr, Request for Issue or Turn-in (3 Pt Set), Prescribed by AR 735-28 and AR 735-29, Revision of DD Form 1150, 1 Oct 57, which

LO 5-3810-232-12-1, -2, -3, and -4, Apr, Crane, 20 Ten, 30 Feet Boom, 2 Engines DED, 4x4, Rough Terrain, W/Buildezer And Earthmoving Blade (American Hoist And Derrick Co Models 2380), W/Engines Commins Models 98-265 Carrier And JN-6-1 Crane.

mov be used until exhausted.

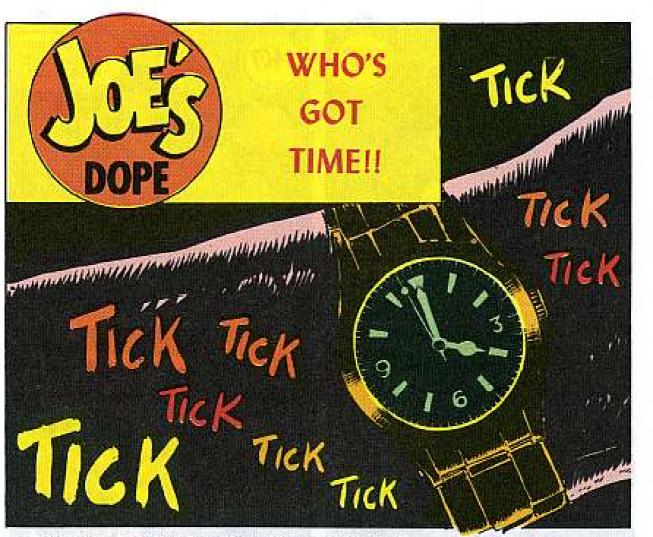
LO 5-6115-339-12, Mar. Generator Sel, Gas Turbine Engines 60KW, AC, 120/208-240/416V, (Airseanth Model GTGE 70-9-2) W/Engine Airsearth Model GTP 70-52.

LO 9-1015-234-10, Apr. Howitzer, Towed, XM102.

SC 3810-93-CL-EG4, Apr. Crushing. Screening And Washing Plant: Diesel and Electric Driven; Wheel Mounted; 225 Tons Per Hour.

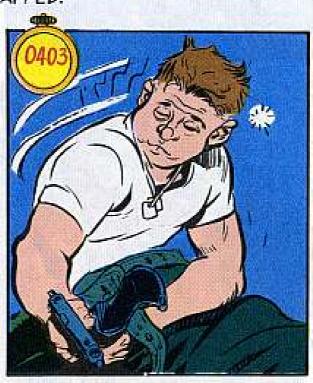
SC 3820-93-CL-E08, Apr. Washing And Screening Plant: Electric Driven; Wheel-Mounted; 75 Ton Per Hour. SC 5180-91-CL-R34, May, Tool Kit, Communications Equipment IK-145/G.

Communications Equipment TK-145/G. TC 23-10, Apr. Operator & Crew, Rifle, XM16E1.



IT'S 0400, THIRTY-SEVEN CLICKS OUT IN THE BOONIES, AND FOR US GUYS IT MAY BE A NUMBER ONE DAY OR A NUMBER TEN DAY, DEPENDIN' ON WHO GETS ZAPPED.











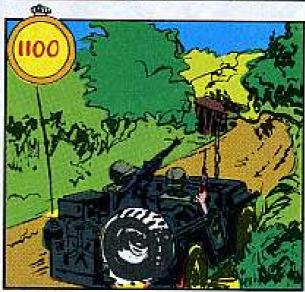






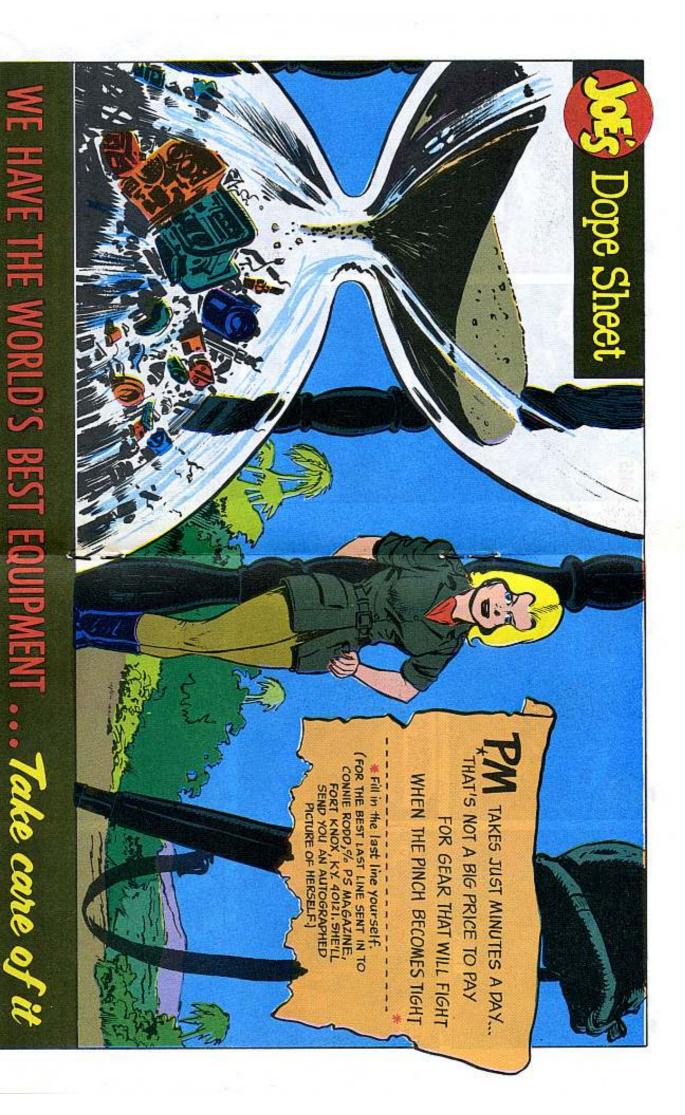






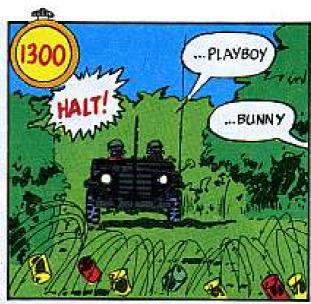






IF YOU WANT TO DISPLAY THIS CENTERPIECE ON YOUR BULLETIN BOARD, OPEN STAPLES, LIFT IT OUT AND PIN IT UP.

























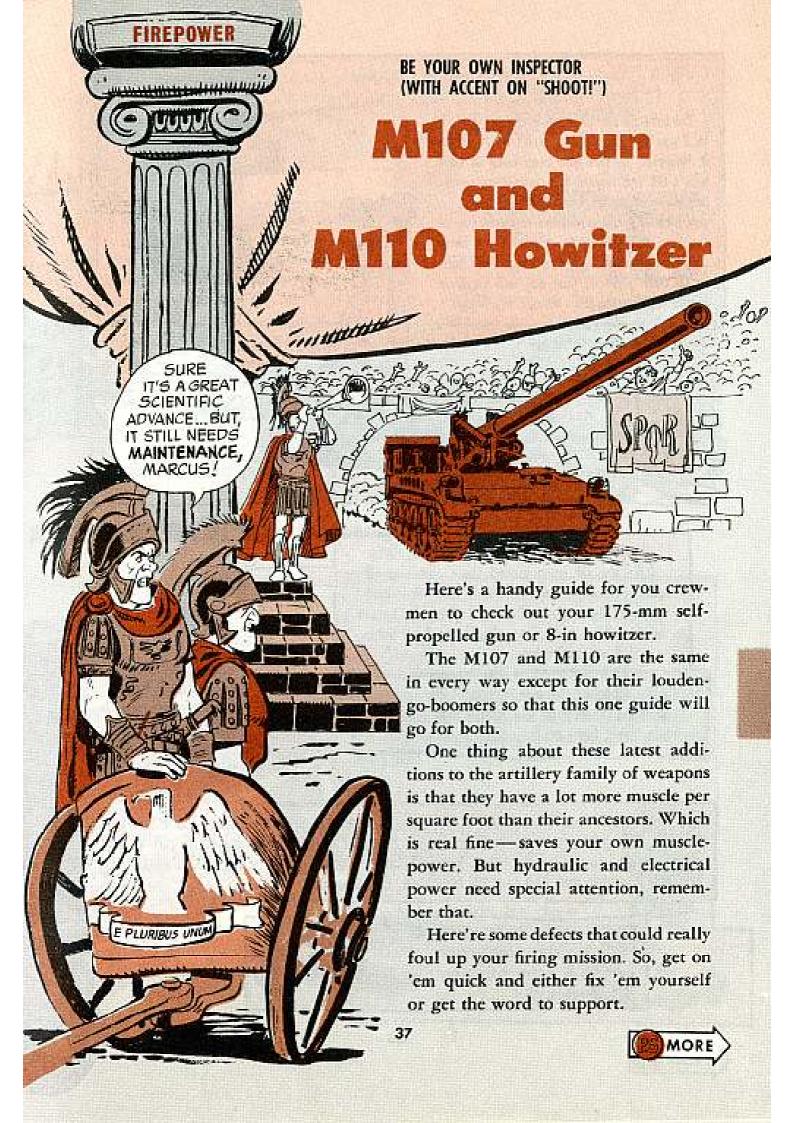


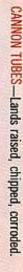






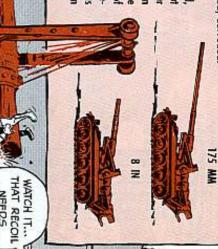






TRAVEL LOCK—Out of adjustment; handles or latches busted or damaged

in TB ORD 1054 (6 Dec 63) will come in so if you find any flaking, dan't worry about column g of its DA Form 2408-4. Any time tube's EFC (equivalent full charge) entries in it. However, be sure you keep track of your scope and pullover gage reading. The charts the tube, ask your support guys for a borehandy for figuring EFC's after every firing you have a doubt about the serviceability of The tube on the 175-mm is chrome-plated



CHECKING NEEDS



any time the vehicle's being moved — and that it stays in travel lock till you're about set must be in battery and the tube should be elevated — using the handcrank. Don't use power! It bends real easy. When you engage or disengage the travel lock, remember, the weapon travel lock in both the travel and fire positions. And doublecheck the shaft on the T-handle. And remember this: to prevent injury to the weapon, make sure it is in travel lock position (If it needs adjusting, get the dope out of Fig 160 in your -20 TM. You want to check the

# COVERS-Missing, torn.

## BREECH MECHANISM

sighting. Clean these plates after every day's firing on 'em. They've got to be in A-1 shape for baretimes. Especially, don't lay tools and other stuff LEVELING PLATES—Chipped, painted, dirty - and don't paint 'em.) (Like the TM says, protect these plates at all

CAM-Chipped, broken; screws loose, crossthreaded. Check to see if the cam follower roller isn't bent or frozen.



10 TM); hammer and cap burred, corroded, carboned up.

damaged, rusty. corroded; extractors bent, FIRING MECHANISM HOUS NG-Housing rusty, dirty,

# ASSEMBLY (Breech closed)

weak, broken; knob cracked, broken; knob pin tiring pin. the closed or firing position — otherwise you'll ruin the Dent. (Never pull the lanyard unless the firing block's in pin damaged, broken; firing pin retainer missing, that they let the firing mechanism turn; firing missing, worn; carrier lugs broken, worn so much follower roller nicked, burred; follower spring FIRING GROUP BLOCK—Won't operate smoothly.

### ANYARD LEVER AND ROPE—

worn-won't hold in groove; not be painted. lanyard rope frayed, cut; Lever bent, broken; lever pin broken—wooden knob should plastic or wood) missing nook bent, deformed; knot



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### BREECH MECHANISM

BREECH RING —Interrupted step thread dambreech recess contains carbon. maged, nicked, burred; powder chamber and

pin is warn out. For that matter, a worn washer could also be at fault if you run into binding when the thrust washer on the breechblock carrier hinge you're opening or closing the breechblock.) (Badly warn bottom threads are your clue that

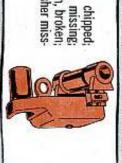
> COUNTERBALANCE - Spring weak; loose; cylinder scored; collar worn. adjustment; bracket screws missing, unit out

ment. Support'll have to replace the spring for you more likely — the counterbalance's out of adjusthard, you'll know the spring's shot or — what's tollowing the poop in Fig 107 of your -10 TM.) but you can adjust the counterbalance yourself by (You can't see the spring, but if the breech closes

ASSEMBLY (Breech open)

latch spring weak; hinge pin rusty; cotter pin worn, broken BREECHBLOCK operating lever bolt badly worn; carrier thrust washer miss operating handle latch mounting screws loose, missing CARRIER ASSEMBLY-Carrier

ing, damaged.



OBTURATOR SPINDLE ASSEMBLY—Mushroom head powder-fouled, corroded, badly PAD GAS CHECK OBTURATOR RING REAR SPUT WASHER THRUST

OBTURATOR

SPINDLE

SPLIT FRONT PARTS...
EXCEPT THE
GAS CHECK
PAD.

COAT OF

ゴミ KEEP A

er vent dirty, clogged; roller pivol busted; control arc damaged, screw damaged; roller worn; cotter pin rusty, corroded, powder-fouled; primnicked, burred, chipped, badly worn, BREECHBLOCK—Interrupted threads loose, missing.

it. Use soap and water only . . . no cleaning solvents, gas, bore cleaner, or anything else. be 180 degrees apart. The gas check pad needs special attention. Improper cleaning will ruin

lube, eh? Another reminder: Never apen the breechblock on either weapon when the firing And when the gas check pad's in place, it has to be kept real dry — so watch out with that

So's you don't get mixed up — the M107 uses a shim with a polyurethene pad and the

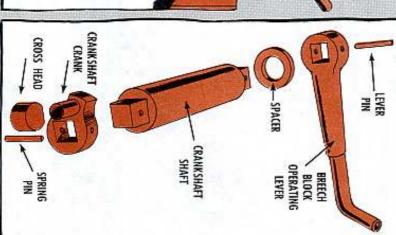
position. It'll beat up the cam roller.

orated; inner ring damaged; thrust washer missing, badly worn.

(Don't forget, there're two split rings — front and rear — and the splits in the rings should

pitted; split rings chipped, corroded; gas check pad damaged, worn, burnt, deter-

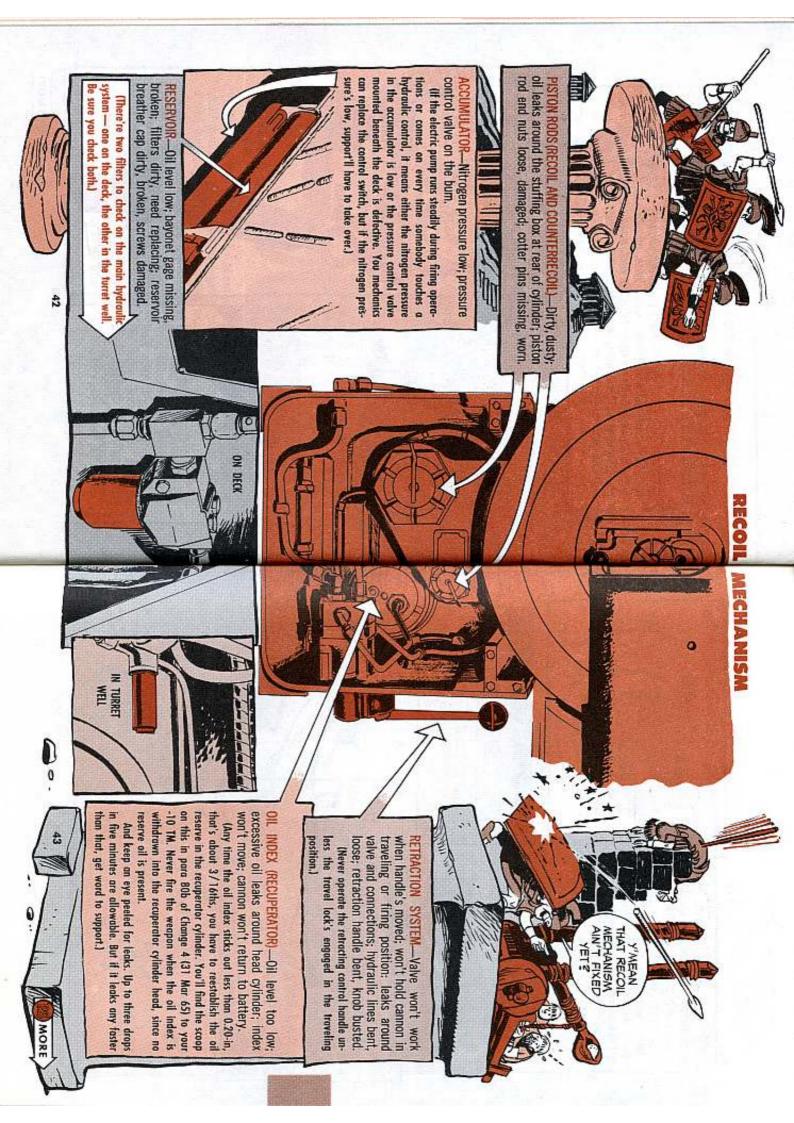
ped; pin bent, missing; crosshead cracked, chipped. scored, nicked; crankshaft bent; crank chip bent; lever pin missing, loose; lever bearing BREECHBLOCK OPERATING GROUP—Handle



MORE

M110 uses a Gerdom-type pad.

block assembly's in the "disassembly"





MECHANISM

STICK US WITH ALL ITS PM. HEY

BEWARE OF GEEKS BEARING FIFTHS...

dirty, clogged, painted over. missing; plug chain broken; breather holes connections; reserve too low; too high; plug REPLENISHER—Piston sticks; oil leaks at

to support pronto.) to escape. If the valve's not working, get the word valve in the counterrecoil front head is working right and allowing the air trapped in the cylinder (When you're firing, make sure the air check





missing. RECOIL INDICATOR\_Broken; screws loose



THERE OVERNIGHT...
WATCH OUT. GREEKS LEFT

THING THE SEE THAT



storage); mounting bolts, rivets, cotter pins

missing, loose, worn.

7 10

over, piugged.

BREATHER

RESPIRATOR Breather holes (4) painted

mended PL when being used and GAA for

painted, needs light lube (recom-

ARIABLE RECOIL MECHANISM—Control rod

dirty, rusty worn; strips, rails and cradle guides burred, CANNON BEARING RAILS -- Wipers missing,

### SPADE CONTROL VALVE AND HANDLE-

spring weak, busted. 2300-216-30/3 (2 Apr 64) not applied; return Valve won't work; handle broken, MWO 9-

00 8 ¢

0 0

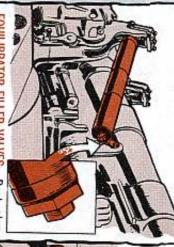
Always try to get the best spot — on level ground other parts, like the spade lifting cylinder seals you'll hurt the rack and spade. This could damage spade like a jack. If you fire while the spade has motor alone to produce hydraulic power — or engine should be running and the auxiliary pump up against an embankment. the end of the vehicle completely off the ground you'll drain your storage batteries. Never use the should be turned on. Don't rely on the 5-HP electric (When you're raising or lowering the spade, the



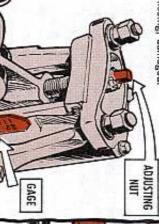
RECOIL SPADES—Mounting brackets broken; bolts busted, missing, cylinders leak; piston important for alining the lock); flexible lines damaged, frayed, leak rods damaged, nicked, burred, rusty; spade cylinder stops broken (these stops are very



scored. at 0-ring seals; nitrogen pressure low; equi-EQUILIBRATORS.—Out of adjustment; leaks loose; piston rod rusty, dirty, dented, burred librators rusty; dust shield bent, damaged



missing, damaged. EQUILIBRATOR FILLER VALVES—Bent, plug



# EQUILIBRATOR TEMPERATURE ADJUSTMENT

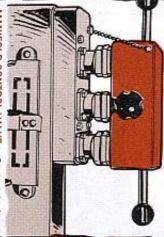
same; adjusting screw nut rounded; worm able; settings on two equilibrators not the GAGES—Painted over; numbers not readgear worn, dirty, chipped.

in fully depressed position on the stops. should be fully extended, that is, with the weapon odjusting temperature scales the equilibrators perature on the scale. Of course, when you're tical. To adjust them, turn the adjusting screws till the arrows on the indexes point to the same tem-(The settings on both equilibrators must be iden-

> LOADER-RAMMER PIVOT STOP \_\_Not adjusted Trayed. right; switch on the bum; wires loose, broken,

cylinder control. Follow the dope in para 34.1 of (pivot interlock switch) that activates the rammer tube—and also it won't work the microswitch the loader-rammer won't line up snug with the





chain busted, missing. MANIFOLD CONTROL VALVE —Cover missing:

body's bound to bump 'em or piddle with not using the rammer-loader. Otherwise, someond get hurt.) (Keep this cover over the controls when you're

seated right inside rammer arms; tray surface painted. projectile band broken; catch bent-won't hold; tray not

LOADING TRAYS—Arms bent, warped, improperly spaced

AMMUNITION! ALWAYS THE FAULT OF THE 75 NOT

on the loader-rammer, it could dump the projectile. And if it's ben' If the back of the loading tray's bent back too far so that it drag

forward too far, It'll get mixed up with the headlink. The tray must

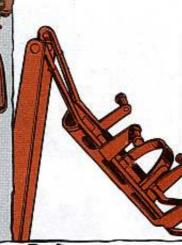
They sometimes bend straight out — and they bend real easy

(The hooks on the tray must fit over the pins on the loader arms

hang down as low as you can get it with the four handles.)

Change 4 (31 Mar 65) of your -10 TM.) (This pivat stop must be adjusted just right or



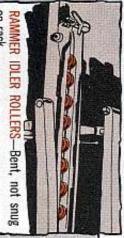


warped, dented; out of adjustment. (Change 4 to your -10 TM has the scoop on adjusting.) TROUGH—Bearing surface painted; trough



RAMMER CHAIN—Out of time or adjustment

recting the timing. On the M107 especially, it's important to get maximum chain extension. (PS 153 has some scoop on establishing or cor-



on rack

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Here're some of the defects and bad operation practices that'll cause a short ram—meaning the chain won't extend far enough to seat the projectile in the 175-mm or 8-incher's tube:

- Easing the vatve handle or creeping or feathering. You want that rammer control valve wide open (full ram) throughout the entire ram, man.
- A bent or misalined loader tray or trough that causes the rammer chain to get hung up.



 An improperly adjusted trough latch which causes the trough microswitch (tray interlock switch) to lose contact. This'll result in fluttering in the chain—a short ram due to intermittent loss of power.

 An improperly adjusted loader-rammer pivot stop which also causes the microswitch to lose contact and a fluttering in the chain.



 A rammer check valve or flow regulator metering valve that's put in backwards could also give you a burn ram. So, if the chain extends fast and comes back slow — or if the chain extends one distance one time and another distance the next time —



GET SUPPORT TO )
DOUBLE CHECK
THESE TWO YALVES.

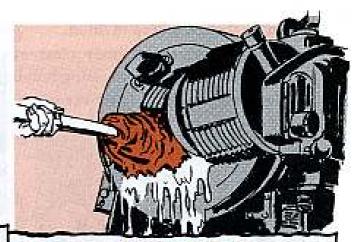
- 6. A bent or sprung rammer rack roller that'll let the rammer rack climb over the teeth of the rammer gear. This'll result in loss of power and a short round. And it'll mean you'll have to retime the rammer chain.
- A buildup of stringy residue from the polyurethane tube used in the powder charge for charge 2 and 3 in the powder chamber and especially in the forcing cone.



It's real important that you crewmen on the M107 especially give the powder chamber a real good swabbing after firing every round. Use cold water and plenty of muscle. Besides cleaning the chamber, the cold water'll cool it off and prevent a hot round. You should also swab the mushroom head of the obturator to cool that off.

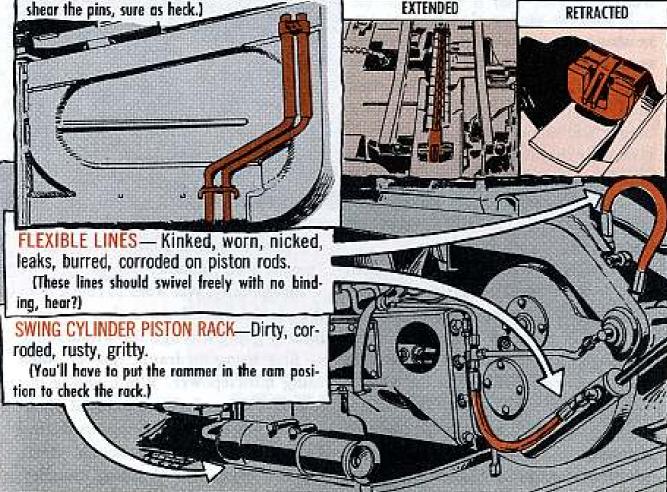
HANDCRANKS—Cranks bent, pins broken or missing.

(Dirt or paint on the pin-end of the handle could give you a problem when you're engaging the dog clutch. Some guys take the paint off and keep the handle end lightly lubed—and the inspectors don't seem to mind. It's lots better than trying to get the crank out in a hurry in a critical situation, that's for sure. Remember, it's the right crank that disengages the power train when you push it in. If you use a strong arm on the left crank only, you'll



HEADLINK AND RAMMER CHAIN—Bumper missing, worn, loose; satety latch broken; rammer chain links and pins badly worn, resulting in rammer chain buckling; link pin cotter pins missing or broken.

SAFETY NOTE: Make sure the rammer's back in the stowed position and smack up against the stop (listen for the thump!) before you fire off. Else, the breech ring'll hit the loader and tear up the works—and maybe a couple of your buddies, too!





## Coupla things to keep in mind.

cranks when you're using power - just both the clevating and traversing hand-Keep your legs and body clear of



will get banged up when the tube nears of the scope and the M137 scope mount the handcrank lined up with the M115 the elevation mechanism. If you leave in a safe spot while you're exercising maximum elevation. panoramic telescope, say, both the elbow Also, keep the traversing handcrank

switch down and gently move the conhot-rodding. take your thumb off the trigger switch then - very important - slow down trol. Build up speed very gradually and versing with power, hold the trigger tion has stopped. In other words, no till elevation, depression or traverse mobefore you come to a stop and don't (the micro-switch on the control handle) Whenever you're elevating or tra-

2300-216-30/5 (Oct 65). This'll give

it a new elevation handcrank called a

"torque lock" handle.

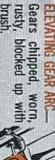
able to tell right off if the brakes are isms regularly for backlash. You'll be the elevation and traversing mechanvalves're returned to neutral position. deflection or elevation after the control defective: The weapon will creep in You'd be smart, too, to check both

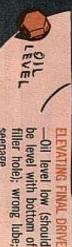
ute getting support to apply MWO 9- torque adjustments. power's being used, don't waste a minspinning of the handcrank when the If you run into any handle creep or

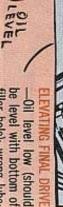
### ELEVATING AND

## TRAVERSING MECHANISMS NEVER TRY TO TRAVERSE OR ELEVATE BY HANDCRANK AND BY POWER AT THE

SAME TIME.







RAVERSE FINAL DRIVE seepage.

hole); wrong lube; seep-31/2-in from top of filler -Oil level off (should be

oil is red. This seepage will tell you that the oil getting seepage from the hydraulic system. Recoi Support guys. seal in the case is shot—another job for your OES only. OES has a neutral color, so if you notice assemblies should be checked weekly. They get any reddish color in there you'll know you're (Like your LO says, both of these final drive

cranks damaged, don't turn smoothly. MECHANISM(MANUAL)—Hand-ELEVATION AND TRAVERSING

switch won't work; solenoid valve sticky (if you don't hear defective; solenoid trigger the solenoid's kaput). CONTROLS (POWER) click, either the button or -Controls

ELEVATION AND TRAVERSING

or damage, and check the oil index in the recuperator for low level. are adjusted right.) elevation's on the jerky side, doublecheck to see that both equilibrators these check out OK, it could be the hydraulic motor's on the burn. If the traverse, doublecheck the hydraulic system for oil line or connector leaks (If either one of the power operations gives you jerky elevation or

the traversing and elevating clutches

firing), get support to double check

ing or bouncing (or hopping during

using musclepower, While you're do-

ing this, if you find any unusual pitch-

isms by going through the whole range

first using hydraulic power, then

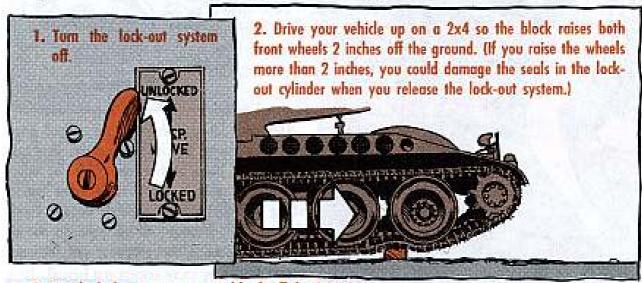
the elevation and traversing mechan-

Incidentally, you want to check both

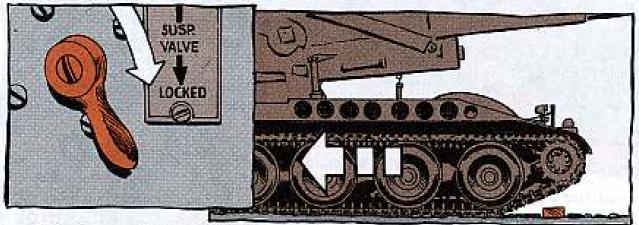
SUSPENSION LOCK-OUT SYSTEM-Won't work; cylinder on the bum; switch won't



If your weapon kicks like a mule when you're firing, it could mean that the suspension's off or not working. Here's how you can check this out:



3. Put the lock-out system on and back off the 2x4.



If the front wheels stay in the raised position you know the lock-out system's OK for those two wheels. Now test the next two wheels and the two after that till all eight wheels have been checked out. If any of them fail to check out OK, get your support guys on the job.

O'course, this kicking could also mean the traversing/elevating slip clutch needs adjusting or the equilibrator pressure's wrong, or your spade's not emplaced right. So check 'em all.

#### SIGHTING AND FIRE CONTROL

No matter how well you maintain your gun or howitzer, it won't be worth a bucket of beans unless you can zero in on your target. So, go heavy on attention to the sighting and fire control equipment. But go real, real light on how you



In general, there're four main things to remember in handling these babies: No rough stuff. Keep 'em covered when not in use. Keep 'em clean and dry. No painting or lubing.



PUBS—Missing, torn, not up-to-date, hard to read, wrong ones.

You should have TM 9-2300-216-10 (28 Jun 62) w/6 Changes; TM 9-2300-216-20 (17 Jun 62) w/Change 3; TM 9-2300-216-20P (17 Jul 62); TM 9-2300-216-ESC/1 (28 May 64) — M110; TM 9-2300-216-ESC/2 (28 May 64) — M107; LO 9-2300-216-12 (19 Aug 65).

RECORDS AND FORMS—Missing, torn, made out wrong, not filled completely according to instructions in TM 38-750 (Jan 64) w/2 Changes.

PARTS AND ACCESSORIES—Missing, dirty, broken. Check what you have against what your TM's say you should have . . . and get those requisitions in pronto.

MWO'S—Missing, not applied; not recorded on DA Form 2408-5 in your log book. (See DA Pam 310-4 for those that apply.)



#### M107-M110 RHEOSTAT ROUNDUP



So what's new, pussycat?

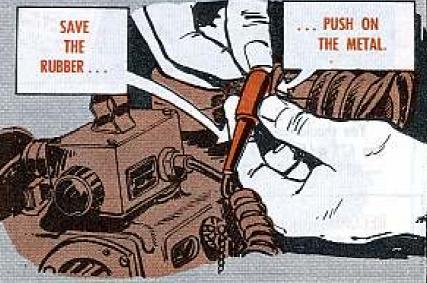
If you've got any of these SP jobs — M107, M108, M109 or M110 — this is new for true-blue you.

The rheostats for some of the fire control instrument lights are going kaput. The way the electrical wizards figure it, the current surge, when you start the vehicle, is ruining rheostats that are left in the ON position.

The cure is simple, make sure that all electrical switches except the ones you need to start the engine are OFF before you start the vehicle.

If you have an M108 or M109, you can fall out... but if you have an M107 or M110, here's a tip.

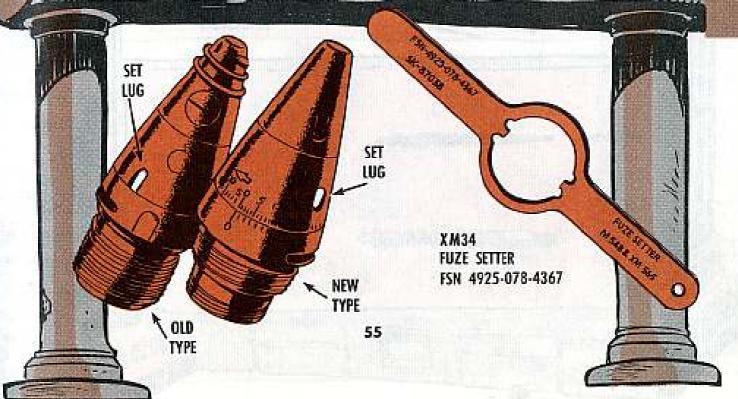
The rubber moulded part of the reticle illuminating light on the M138 telescope mount is getting

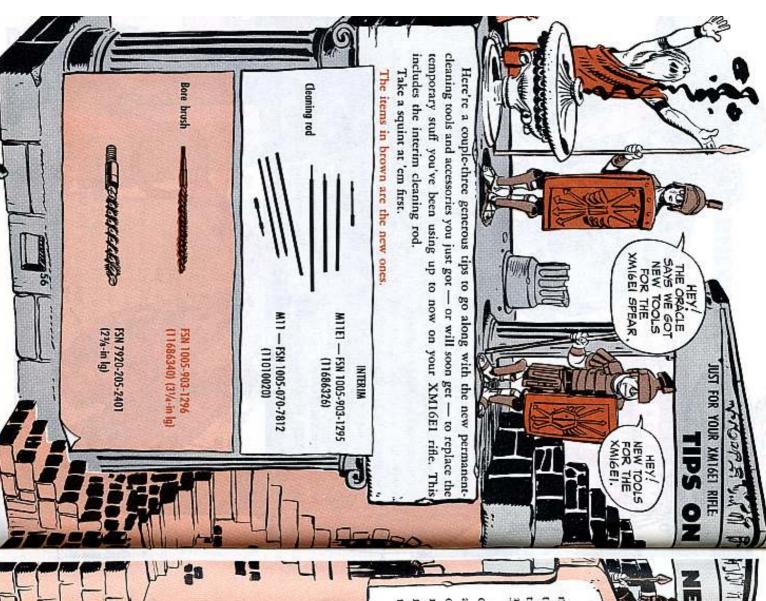


cut and torn because some heavy handed types are pulling on it when they disconnect the light from the telescope mount.

Cure for this is to keep it from happening. Remember it like this — push on the metal and you save the rubber.









NEW TOOLS

XMI6E!

HARK! NEW TOOLS FOR XMI6E!

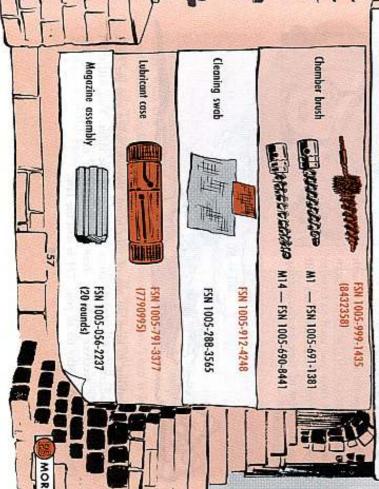
# BEWARE: DIFFERENT THREADS

The big difference between all the new tools and all the old ones is in the threads. Yeah. The new ones have finer threads (36 to the inch as compared to 32 per inch for the old).

This means you can't screw sections of the old and interim rod together, and you can't use the new bore brush or the new chamber brush with the old rod or the old brushes with the interim rod. To each his own, like that hit used to moan.

But, if you should happen to get the

bore brush, you could use the new bore brush, you could use the interim rod with the old brush—but only to push the brush through the bore. Don't try to screw it on. You do the push job by removing the swab holder and use the lower section of the rod as a guide to shove the brush—a one-way deal with the weapon stripped, o'course. Push the brush all the way through from the muzzle end, and then all the way through from the chamber end.



Watch this, though! If you get one of the straight-handled "interim" M11E1 cleaning rods (FSN 1005-903-1295) ask your armorer to get the handle bent before you screw the chamber brush into it.



The new swabs are about one-fourth the size of the cal-30 types you've been using — the ones you used to have to slice four ways. These new ones will save you a lot of time in the cutting department.

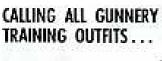


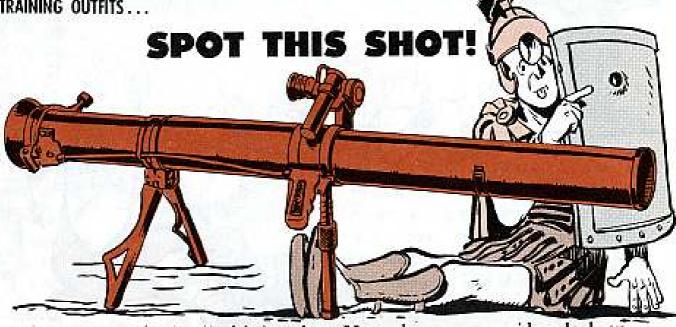
The new double-end lube case (FSN 1005-791-3377), holding PL Special (FSN 9150-273-2389) in one end and rifle grease (FSN 9150-248-3480) in the other, is a real gem. Your armorer can fill both ends for you, and refill, too, when you run low.





Here's something to keep on top of your mind, though, when you get these bright new gadgets. They don't change anything in the rules. You still can't take the lower receiver apart to clean it. That note on page 3-8 of the Change 3 dated 1 May 65 to your TM is still the law.





If you've got the locally-fabricated M149 subcaliber device (FSN 1005-878-0204) for spouting 7.62-MM tracer bullets from M67 90-MM reckless rifles, be sure you use this ammo:

M62 cartridge with GMCS (gilding metal clad steel) jacket.



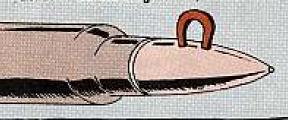
If you by mistake use the M62 cartridge with GM (gilding metal) jacketed bullet, you'll wind up with no tracer at all. The ammo may break up and stick in the barrel or give you poor accuracy. You might even get hurt by fragments in the backblast.

Now, these two cartridges look exactly alike, so you can't tell 'em apart by eyeballing. However, there're two other ways to identify 'em:

1. Check the lot numbers. These are the ONLY lot numbers to use at the present time:

FA-1 thru FA-81 LC-12000 thru LC-12303 RA-5000 thru RA-5224 WCC-6000 thru WCC-6088

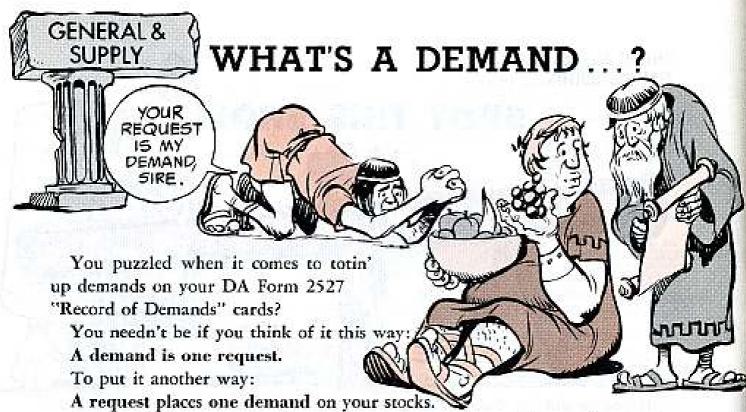
2. Give 'em the magnet test, like so:



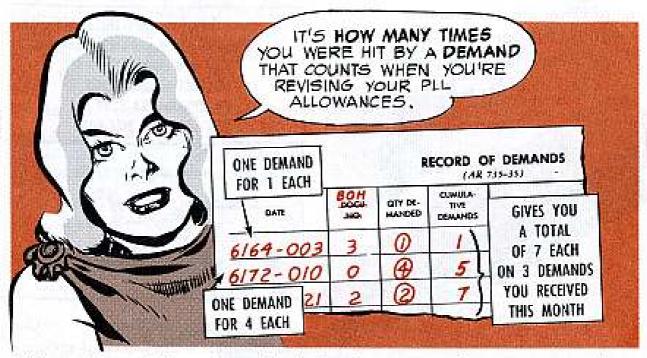
Put a magnet (the dime-store variety will do) against the bullet. If the magnet sticks, it's the right ammo.

If the magnet won't stick, it's the wrong ammo. Turn it in pronto.

If there is still any doubt in your mind, turn the stuff in anyway and be sure you get your ammo from batches bearing the listed lot numbers.

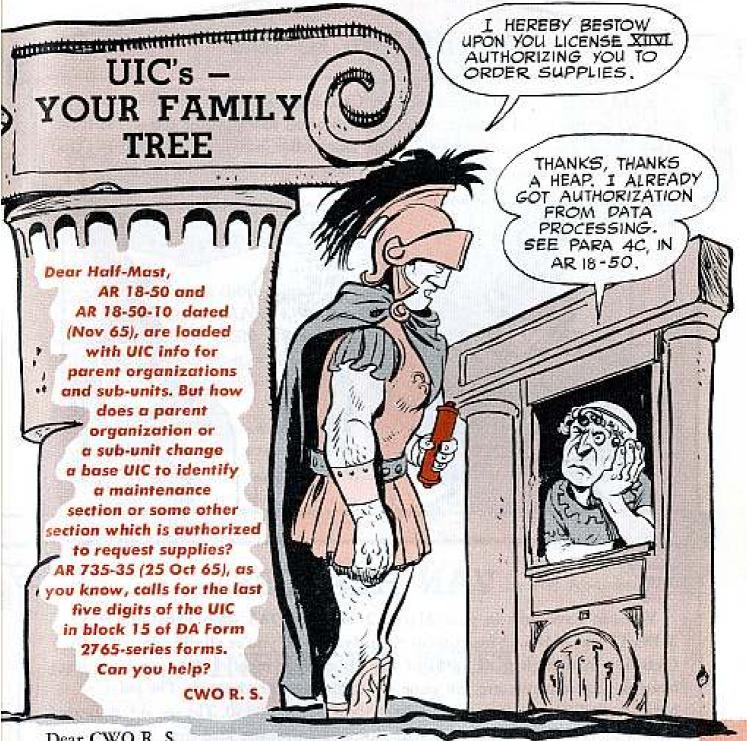


A demand (the request), of course, can ask you for a minimum of one each, or it can ask you for 100 each, or more, of a specific repair part, or maintenance item. But in each case, it's only one demand.



So, on items which you're authorized to increase or decrease your stockage, you first count the separate demands you recorded on a card. If the card shows 3 or more separate demands within the last six monthly reviews, then you add up the each items (cumulative demands) which the separate demands asked for to find what your stockage will be.

Pages 6-1 thru 6-11 of AR 735-35 give you the SOP on maintaining your PLL stocks.



Dear CWO R. S.,

Maintenance sections and other non sub-unit sections are considered splitelements of sub-units. And, they can be identified by codes authorized under Group 4 and Group 5 in AR 18-50.

The right way, tho, to get your sections a legitimate UIC is to ask the data processing activity in your area to assign the codes. Just send in (or take) your base UIC and a list of the sections which need UIC identification, and the data people will set-up the codes for you. That way your outfit's UIC's will be properly registered and recorded at all levels concerned. See para 4c, in AR 18-50. Half-Mast

#### **DA FORM 10-102**

(4)

A DA Form 10-102, Organizational Clothing and Equipment Records, takes only name and serial number in the identification block on the top of the form. And, all the form takes in the signature line is the individual's signature. That way when rank changes, no sweat. No change is needed on the form.

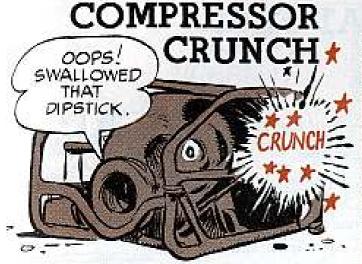


#### **VAN HEATERS**

You can have heat in your M109A2 and M109A3 shop vans and in your M185A2 and M185A3 instrument repair vans—if you're eligible under SB 9-16 (Feb 65). Although para 5a(3) of the SB doesn't mention the new multifuel heaters, requirements are the same as for the gasoline heaters. The primary, or basic, multifuel heater comes under FSN 2540-903-0450. The secondary heater is FSN 2540-903-0451. The SB will clue you in on the lead-time that's needed to get the kits, so check it for size before putting in a request.

#### FOLLOW THE APPENDIX

DA Circular 750-13 (Oct 65) reminds you to send your DA Forms 2407, 2407-1, 2408-3, 2408-7, and 2408-8 to the addresses listed in Appendix II of TM 38-750 instead of to the national maintenance points. The NMP's get the info, so there's no need for duplication.

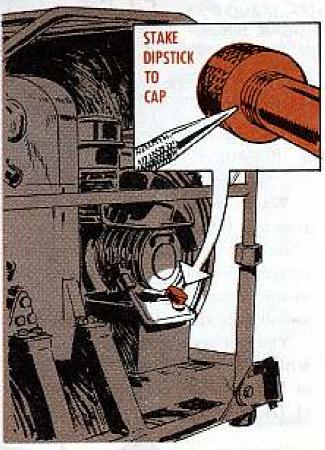


Best look after this chore soonest.

As you know, on the AN-M4, Walter Kidde compressor (FSN 1040-592-8560), the oil sump dipstick (it's called a gage rod) screws into the oil fill-hole cap.

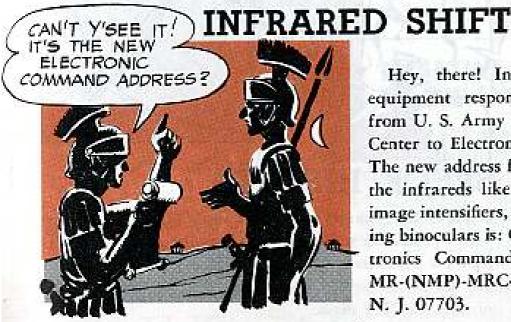
Could be you haven't noticed, though, that normal operating vibration loosens the dipstick from the cap. And, if the dipstick backs-off all the way, natch . . . it'll drop into the compressor's crankcase.

To head off this serious problem the dipstick must be staked to the cap. One careful hit (with a punch and a ham-



mer), where the dipstick screws into the cap, will do the job. First, of course, the dipstick must be screwed all the way into the cap.

This'll keep the rod from backing off.



Hey, there! Infrared night vision equipment responsibility has moved from U. S. Army Mobility Equipment Center to Electronics Command. Yep! The new address for taking care of all the infrareds like weaponsights, tube image intensifiers, searchlight and driving binoculars is: CG, U. S. Army Electronics Command, ATTN: AMSELMR-(NMP)-MRC-A, Fort Monmouth, N. I. 07703.



Water dripping down your collar from the seams of your small general purpose tent (FSN 8340-753-6570) can make you miserable.

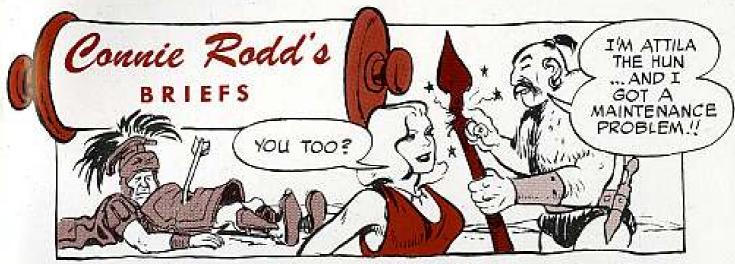
But you can cure water sceping in through the threads with a mix of textile preservative and solvent, provided you can get the tent dry first. Mix equal parts of the preservative and solvent, paint on, let it dry for a full day, do the paintand-dry act again, and you should be rid of the splash.

You can get a gallon of preservative (Mildew Resistant Compound, textile) with FSN 8030-290-4382 from DoD Cat C8000-IL-A (1 Jan 66), and a gallon of Dry Cleaning Solvent with FSN 6850-281-1985 from DoD Cat C6800-IL



SPECK INSERTS

For awhile longer you spectacle-wearers can forget about optical inserts for the M25A1 and M14-series protective masks. Inserts are discussed in TM 3-4240-255-14 (Sep 65), para 1-13, Section IV, and in TM 3-4240-223-15 (Jun 62), para 13, but they're not in the supply system just yet. For now, optical inserts are available only for the M17 mask.



#### New Landing Gear

Better check to see if the landing gear on your semi-trailer for your set No 4 electrical repair shop equipment has been modified according to MWO 5-4940-203-35/1. (Sep 61). If not, your support can order kit number 0100-BO6-0607 from U.S. Army Mobility Equipment Center, 4300 Goodfellow Blvd., St. Louis, Mo. 63120 and do the job for you.

#### Boat Radio Manual

If you need a manual for the AN/ SRC-32 radio set in your watercraft, fire a letter off to Commanding General, U.S. Army Electronics Command, ATTN: AMSEL-MR-NMP-CM, Fort Monmouth, N.J. They'll get a copy to your outfit toot sweet.

#### M577 Generator Cover

Need replacement for the canvas cover on your M577 auxiliary generator? Ask for Cover, Auxiliary Power, FSN 2540-066-4281. You'll find it in Fed Cat C2540-IL-A (Apr 66) with new part number 10932720.

#### VRC-12 Fuse News

For the health of the PP-2953/U in the receiver-transmitters of your AN/VRC-12 series radio sets, be sure the PP-2953 is wearing a new fuse made just for transistorized power supplies. The new job's a type GBB-10 and goes by FSN 5920-892-9861. It'll go in the next change to the parts list. It replaces the slower-acting type FO3G1OROA and gives proper overload protection.



#### MAGAZINE GETTING

GET THE PUBS MAN IN YOUR
OUTFIT TO SEND IN A NEW

DA FORM 12-4 TO THE BALTIMORE
PUBS CENTER... AND, TELL HIM
TO ORDER ENOUGH TO KEEP
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Would You Stake Your Life in on the Condition of Your Equipment?

