

Issue 293

PS

★  
April  
1977

THE  
PREVENTIVE  
MAINTENANCE  
MONTHLY



NUTS!...  
TURBO'S SHOT!  
AN!...  
MY NEXT MONTH'S  
PAY SAYS THE ENGINE  
HEAD'S CRACKED!



MURPHY  
ANDERSON



HOW LONG  
DID YOU  
IDLE BEFORE  
YOU SHUT 'ER  
DOWN?

IDLE...?

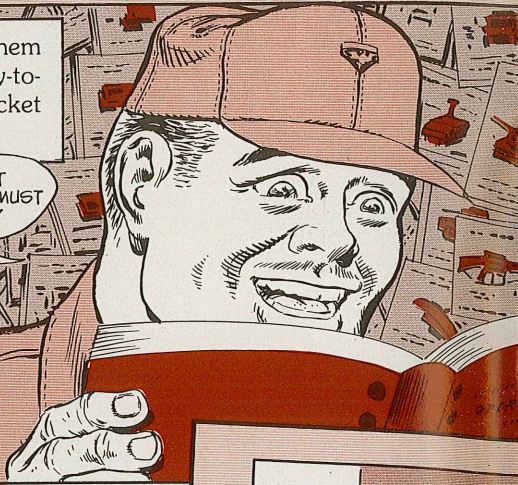
See  
"IDLE OFF  
BEATS  
BURN-UP"  
Pg. 29

NEW LOOK MANUALS

# THE READING'S EASY... IN COLOR AND STYLE

You've seen some of them around: brightly colored, easy-to-read TM's that can fit in your pocket or a logbook.

**WOW!**  
SOMEBODY UP AT THE HEAD SHED MUST BE READING MY MIND!



HERE ARE A FEW OF THE IMPROVEMENTS...

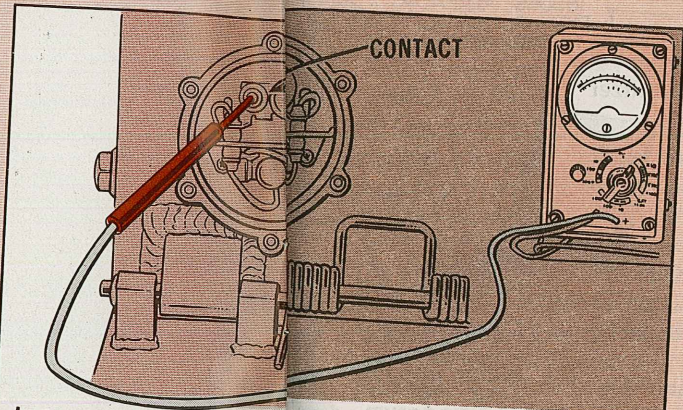
- Parts lists and pictures of repair parts on the lists are being placed on the same page or facing pages.
- Most operator manuals are separate from organizational maintenance manuals.
- Test equipment your unit uses will be pictured.



Maybe you've wondered whether you'll be getting one on your equipment.

Hang in there. Most Army equipment will be getting the new style operator and organizational level manuals. But, it'll take time.

Many of the manuals are in color, they're in easy-to-read language, with lots of pictures to take the sting out of what could be puzzling instructions.



J Remove taillight cover (314) and turn MASTER switch ON. Turn light switch to SEVICE DRIVE position. Remove taillight bulb (p 315). Using multimeter, place red lead in center contact and ground black lead. If voltage is present, replace taillight bulb (p315). If no voltage, replace bulb in socket and go to step K.

**PS** THE PREVENTIVE MAINTENANCE MONTHLY

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PS wants your ideas and contributions, and is glad to answer your questions. Name and address are kept in confidence. Just write to: Or call: AUTOVON 745-3503. **MSG Half-Mast PS Magazine Lexington, KY 40511**

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**PROBLEM**  
**TEST OR INSPECTION**  
**WHAT TO DO**

**PERSONNEL HEATER**  
**14. HEAT EXCHANGER LOADS UP WITH SOOT AND CARBON.**  
Step 1. Check to see if exhaust outlet (page 1-4) is restricted.  
Clean.  
Step 2. Fill all too heavy grade for weather condition.  
Clean.  
Step 3. Fuel with proper fuel oil.

**15. HEAT OUTPUT LOW.**  
Check to see if heater switch is in HI position.  
Place in HI position.

**16. HEATER SMOKES OR BANGS UPON STARTING; DOESN'T START.**  
Check to see if you are starting the heater correctly.  
See starting procedures (page 2-80).

**BLADE PUMP**

Release (page 2-48).

Step 4. Check to see if main drive gears are obstructed by dirt on turret ring gear.  
Clean.

AND HERE ARE A COUPLE MORE...



3-7

**BASK PERIODIC TESTS - CONTINUED**



M36

M28

**TEST OF FUSE SETTERS**

Examine the fuse setters M36 and M28 as follows:

1 Check for burrs or dented edges on the stop that fits into the slot of the movable time ring and on the adjusting panel which engages the notch in the fixed time ring, panel T1 free.

2 Depress the adjustable panel against its spring to determine that the movement of the hole on the fuse setter must have the same production as the time ring on the fuse.

**TIME SCALE TEST**

The time scale test is performed to verify...

Operator manuals are super-simplified, with many pictures and with only the information you need to get the job done. They aren't crowded with a bunch of unnecessary words.

3-30

**FIREPOWER**

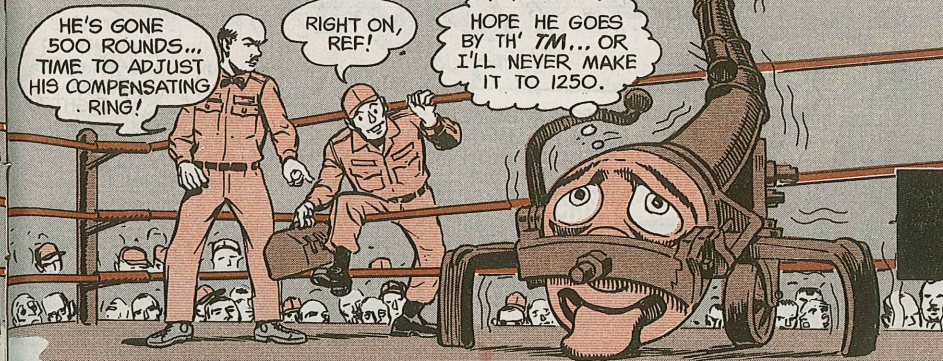


**VENT ADJUST**

HE'S GONE 500 ROUNDS... TIME TO ADJUST HIS COMPENSATING RING!

RIGHT ON, REF!

HOPE HE GOES BY TH' 7M... OR I'LL NEVER MAKE IT TO 1250.



Take one breechblock vent assembly, clean and adjust it like the book says, and you help keep those 106-MM recoilless rifles at top operating efficiency.

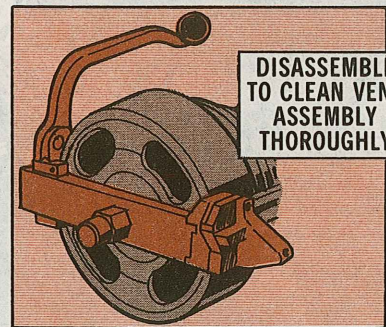
Since the vent allows gas to escape, keeping it clean is a must. That's a job for the armorer . . . after each day of firing. The assembly has to be taken apart and cleaned thoroughly with RBC.

Proper adjustment of the compensating ring insures the right muzzle velocity for the rifle.

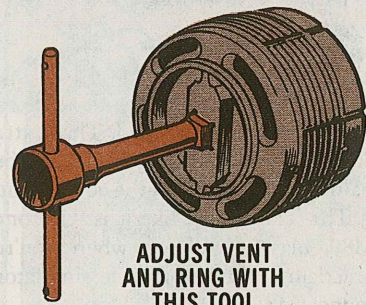
The number of rounds (500) that go through a barrel determines when the armorer should adjust the compensating ring. And, the rounds fired tell when the barrel and vent assembly can no longer be used (1250 rounds).

Your up-to-date DA Form 2408-4 (Weapon Record Data) will keep you clued on number of rounds fired.

Table III.1, page 11 of Change 2 to TM 9-1000-205-12, says when adjustments are needed. Para 64, page 10, of Change 2 tells how to make the adjustments.



**DISASSEMBLE TO CLEAN VENT ASSEMBLY THOROUGHLY**



**ADJUST VENT AND RING WITH THIS TOOL**

The "new look", in part, has even touched other kinds of publications. Case in point: the supply catalog for Aircraft Mechanic's Tool Kit, SC 5180-99-CL-A01 (Jun 76), where pictures of the tools, descriptions and NSN's are on the same page or facing pages.

THESE ARE SOME OF THE PUBLISHED MANUALS, INCLUDING SEVERAL DRAFT AND TEST ISSUES ALREADY DISTRIBUTED TO THE FIELD...

**Log Book Size:**

- TM 9-1005-286-10 (Jan 76) M167 Vulcan
- 9-1450-485-10 (Aug 75) M667 Lance Carrier
- 9-2350-217-10N (Sep 74) M109/109A1 Howitzer
- 9-2350-217-20N (Mar 76) M109/109A1
- 9-2350-230-10 (Jun 76) M551 Sheridan
- 9-1015-234-12 (Jun 75) M102 Howitzer
- 9-2350-247-10 (Apr 76) M548 Carrier

**Pocket Size:**

- TM 9-1005-231-10 (May 74) M85 Machine Gun
- 9-4910-509-10 (Apr 75) Low Voltage Circuit Tester
- 9-1010-221-10 (Jul 74) M203 Grenade Launcher
- 9-1005-224-10 M60 Machine Gun
- 9-1005-249-10 (May 75) M16A1 Rifle
- 9-1005-233-10 (Jul 74) M73/M219 Machine Gun
- 9-6920-429-12 (Feb 76) Guided Missile Training Set
- 11-5820-667-10 (Oct 75) AN/PRC-77 Radio Set



IF YOU HAVEN'T SEEN ANY, FIND A BUDDY WHO HAS ONE AND TAKE A LOOK...

YOU'LL LIKE THEM!

TOW ON  
THE GO . . .

# the BIG BOOM BRINGS GLOOM

LOOKING FOR A BIGGER BLAST FROM THE M80 BLAST SIMULATORS USED WITH YOUR TOW MISSILE SYSTEM SIMULATION ROUND?

YOU GOT OUR NUMBER, CONNIE!

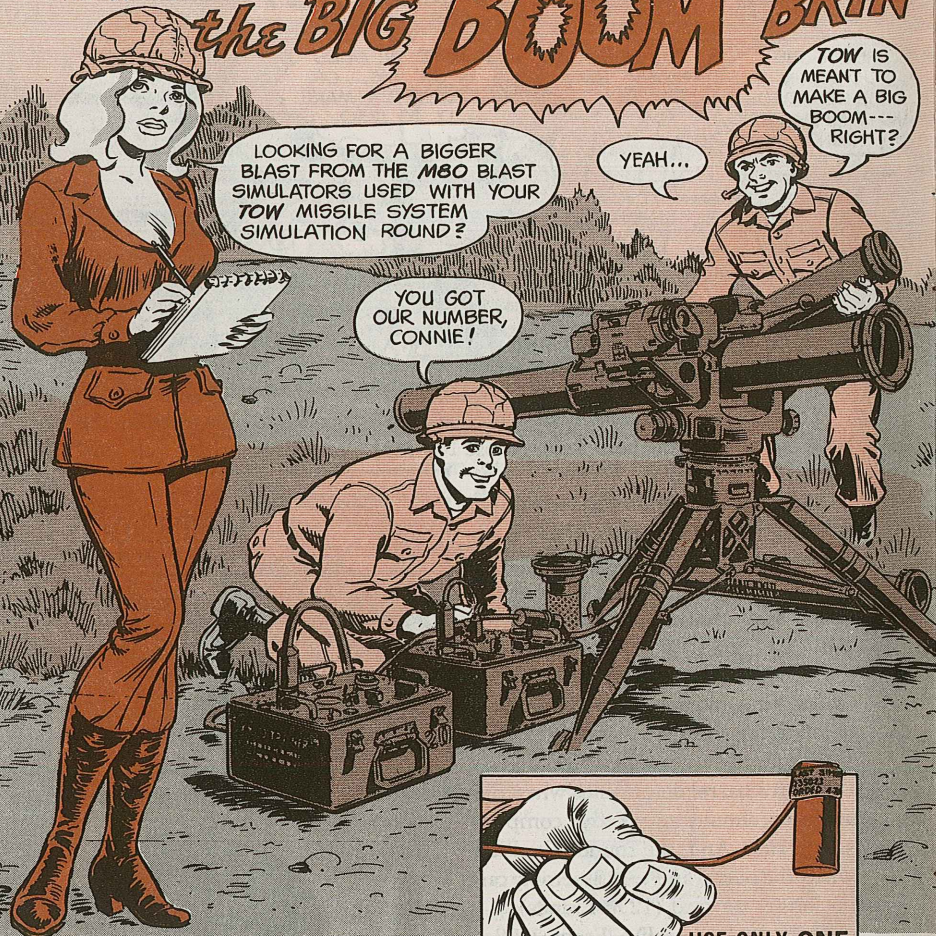
YEAH...

TOW IS MEANT TO MAKE A BIG BOOM---RIGHT?

THOSE DUDES GOTTA LEARN TH' HARD WAY, EH?

SEEMS THAT WAY!...

THEY'LL SOON FIND THAT BUST OFTEN GOES WITH BOOM!



Look elsewhere, friend. That extra "boom" from too many M80's can be painful . . . to you and the equipment.

The TM tells it like it is. Use one M80 blast simulator when you're practicing with the missile simulator round (MSR).

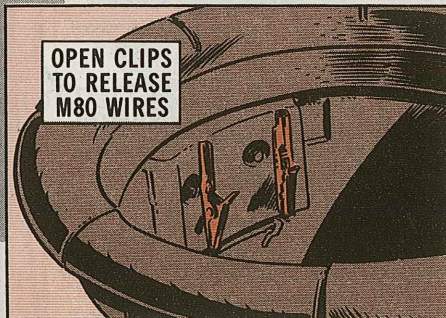


Two or more M80's create too much blast . . . which can take the hide off you, destroy the wiring in the MSR, and tear out the alligator clips that hold the M80 wiring.

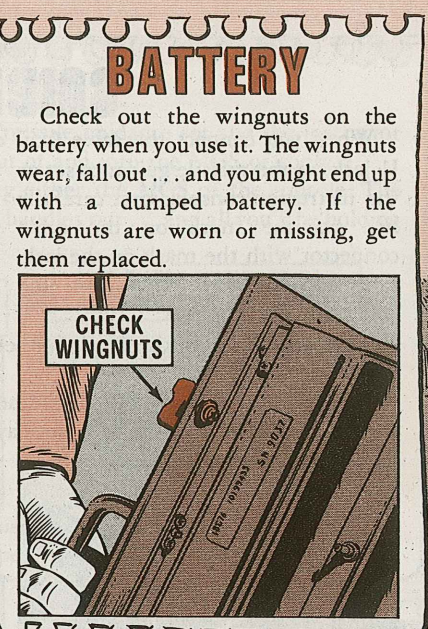
# BRINGS GLOOM



On to less hazardous matters: Those alligator clips in the MSR are somewhat less than rugged. So, when you've finished firing, release the M80 wires by opening the clips.



If you yank or pull the wires from the clips, you can either damage the clips or the connector to which the clips are attached.



## COIL CORD

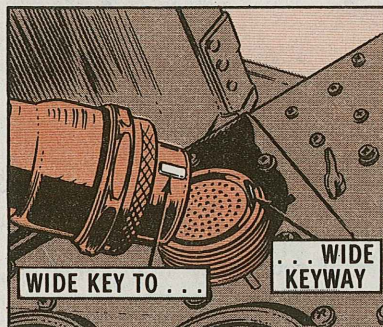
When you connect the cable (coil cord) from the traversing unit to the J1 jack on the missile guidance set or the instructor console, first carefully line up the mark on the cable connector with the mark on the jack. Line 'em up . . . then push the connector into the jack.



LINE UP MARKS FIRST

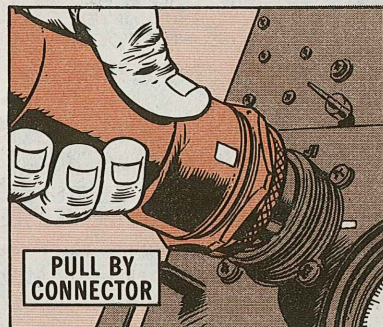
If you force or twist the connector before lining it up, you can break or bend the pins.

If the marks on the connector and jack are chipped off, line up the wide key on the connector with the wide keyway on the jack. Then, slide it into place.



WIDE KEY TO . . .

... WIDE KEYWAY



PULL BY CONNECTOR

When you remove the cable, pull it by the connector . . . not the cable wire. Saves breaking cables.

## LAUNCH TUBE

Easy does it when you remove the launch tube from the traversing unit. The cargo hatch and other snags will bang the tube up as sure as you're carrying it.

Sure, the tube's awkward to carry in tight places, but a little care can bring it through unscathed . . . and serviceable.



HALP!

YANK ON ME, WILL YA?

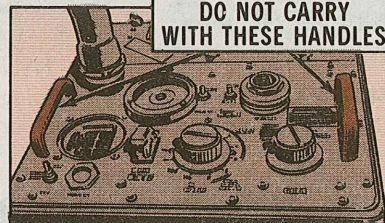
SS-S-SS

THAT'S WHAT YA CALL "CABLE REVENGE," EH, CONNIE?

## CONSOLE

Those handles on the face of the missile guidance set and the instructor console are for lifting components out of and into the MGS or console.

Never use the handles for carrying either the MGS or the console. The weight of the equipment can pull the handles out . . . and all you'll be holding will be the handles.



DO NOT CARRY WITH THESE HANDLES

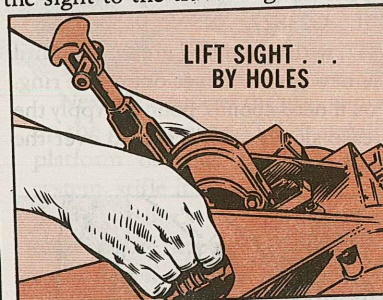


USE THESE HANDLES FOR CARRYING MGS OR CONSOLE

To lift the entire MGS or console, use those sturdy carrying handles on the side of the chassis . . . the folding type.

## SIGHT

Carry the optical sight by the holes in the metal brace. The locking handle has only 2 purposes: to lock or unlock the sight to the traversing unit.



LIFT SIGHT . . . BY HOLES

If you carry the sight by that handle, you'll break the handle.

## TRAVERSING UNIT

Carrying onward, here's the word on moving the traversing unit around: carry it by the 2 control knobs you use in firing and practice.

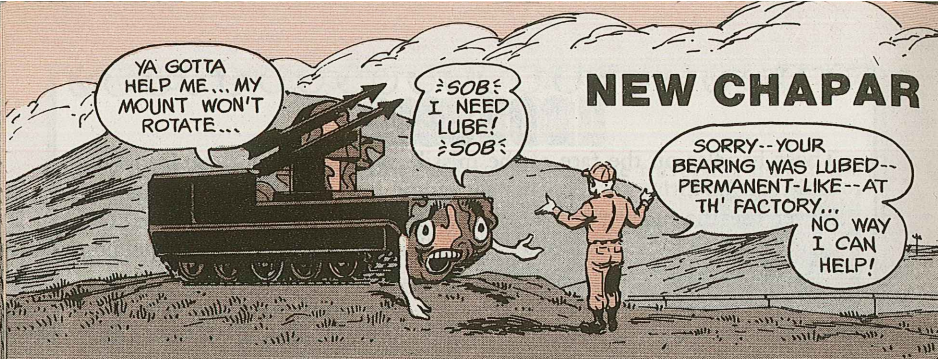


CARRY UNIT WITH THESE

Carrying the unit by the bridge clamp may seem the handiest way, but that method can foul you up. It misaligns the guide-pins of the launch tube and the electrical connector in the bridge clamp . . . and you won't be able to fire the weapon.



WATCH HOW YOU CARRY THAT GEAR, SOLDIER.



## NEW CHAPARRAL

The mount on your Chaparral launch station can grind to a halt if you don't follow a new, semiannual lube step.



The new step calls for crewmen or organizational mechanics to grease the azimuth bearing. That's the large ring bearing between the mount and pedestal.

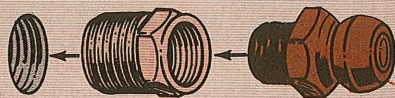
It was supposed to be lubed permanently at the factory, but that grease won't hold up under field conditions. Without grease, the mount won't rotate on the pedestal, and other parts of the mount assembly get damaged.

So, here's what you do:

First, use a  $\frac{5}{16}$ -in allen wrench to remove the hex-head access screw on the outside of the azimuth bearing.



Next, insert pipe bushing, NSN 4730-00-196-0930, into the opening and tighten it with a  $\frac{9}{16}$ -in socket or wrench.

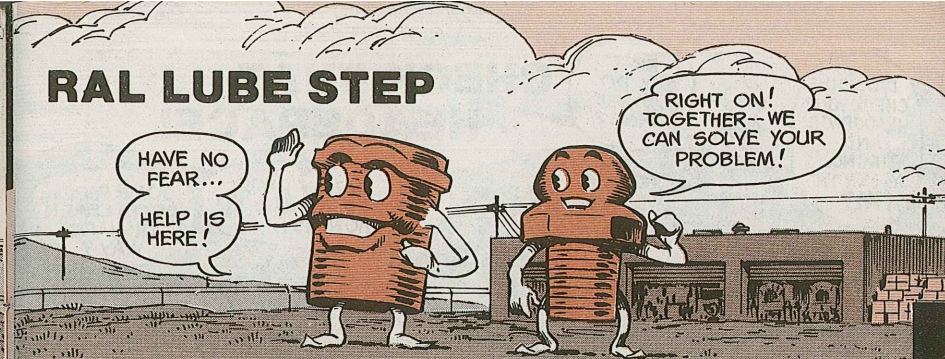


INSERT LUBE FITTING, NSN 4730-00-050-4208, INTO THE BUSHING.

Now, have a buddy rotate the mount slowly while you pump grease, MIL G23827, NSN 9150-00-985-7247, with a standard grease gun until the new grease comes out of the ring. You'll need about 2 pounds. Apply the grease slowly so it'll spread over the whole bearing.



## RAL LUBE STEP



Once you've applied all the grease, remove the fitting and pipe bushing, and replace the hex-head screw.

LO 9-1440-585-12 is being changed to include this step.

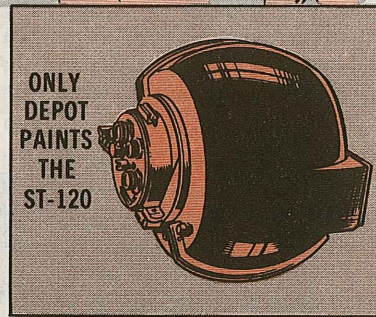
## HOLD THE PERSHING PAINT



Next time you get the urge to pretty up the paint on the ST-120 stabilized platform of your Pershing missile system, stifle it.

The paint's a special high-temperature type which takes the strain when the heater comes on. If you spot paint or second coat with the wrong kind, the paint blisters and flakes.

And, those flakes get into the G&C section, where they cause problems. The right paint's available only at



depot level, so repainting the ST-120 in the field is out.

DID YOU CHECK YOUR HEADSPACE AND TIMING AS PER TH' TM?

ER-- WHY DO YOU ASK, SARGE?

# CHECK THAT HEADSPACE!

THAT TURKEY HASN'T CHECKED HIS M2 IN MONTHS!

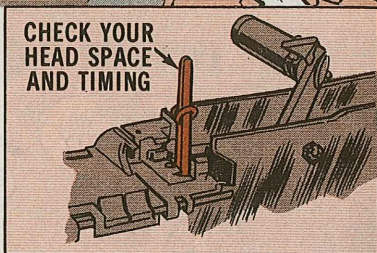
SOME PEOPLE GOTTA LEARN TH' HARD WAY?

Good PM and TM adjustments help keep your M2 machine gun spitting out the lead.

Prime among operator adjustments are headspace and timing. If either is off, your gun will malfunction, parts will be damaged, and somebody may get hurt . . . like you.

TM 9-1005-213-10 (Jul 68) tells you how to make the adjustments. It's up to you to get them done. It's the best way to keep your gun out of the repair shop and yourself off sick call.

CHECK YOUR HEAD SPACE AND TIMING

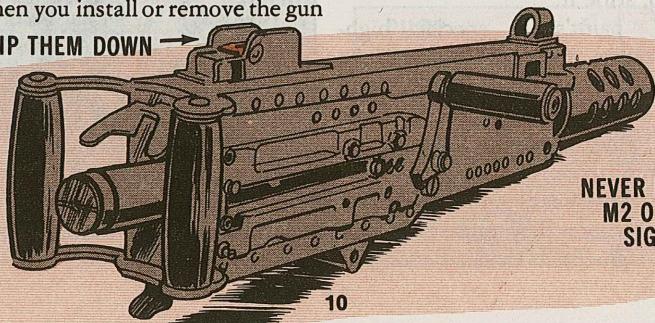


## SIGHTS

The sights, especially the rear one, can't take rough handling, so you've got to be extra careful with them when the gun's off its mounts. Big caution; never lay the gun on the sights.

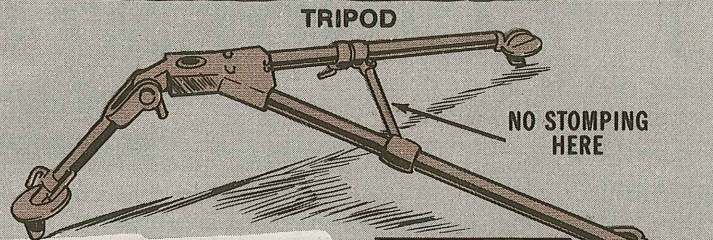
When you install or remove the gun

FLIP THEM DOWN



NEVER LAY M2 ON SIGHTS

on a track vehicle, watch those rear sights. Flip them down when not in use. Pass the gun through the hatch, and don't throw it over the side to a buddy . . . or whatever.



Rugged though they appear to be, traversing bars and leg latches of the M3 tripod still get battered. Standing on them, in or out of vehicles, and throwing the tripod into vehicles are among the top causes.

The traversing bar also gets clobbered when gun crews attempt to seat the tripod legs into the ground by stomping on . . . you guessed it . . . the traversing bar.

The best way is to stomp the foot on



the end of the legs. If you use your boot, steer away from the leg clamps. The clamps bend or break . . . and you need them to keep the legs up.

## BARREL

Finally, never use over-sized cleaning rags in the barrel. Large rags jam, and your gun might have to take a trip to the shop to get the rag and the

cleaning rod removed.

The swabs you need are listed on page 107 of your -10 TM. There's no shortage.

## NO FEEDTRAY SWITCH

HEAVEN HELP US.

THIS MG WON'T CATCH THE CARTRIDGE!

AN' THIS ONE WON'T EJECT TH' CARTRIDGE!

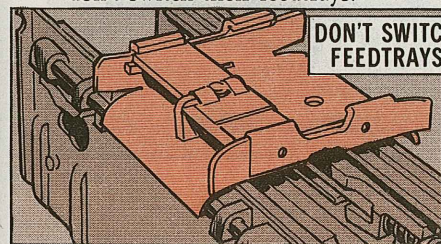
OH, WOE! THESE YO-YO'S HAVE SWITCHED OUR FEED TRAYS!

If you want to keep your M73/M73A1 and M219 machine guns eating and spitting out lots of ammo, don't switch their feedtrays.

The feedtrays are not interchangeable . . . even though they look like they might be.

If you put the M219 feedtray on the M73, the tray bends down the rammer and can't catch the cartridge.

If you put the M73 feedtray in the M219, the M219 won't eject the cartridge.



**ACCIDENTAL**

**DANGER MAY BE ON 2 VEHICLES:  
M551 SHERIDAN, M60A2 TANK**

The headline above is for an incident that has never happened—and with your help it never will.

However, there was one close call when a test round shot out the tube of an M551 Sheridan with nobody pressing on a firing button.

The round took off because the cable assembly ("U") cord was in poor shape. So, check this cord carefully. It's cord NSN 1025-00-945-4321 for the M551/M551A1 and cord NSN 1025-00-932-1164 for the M60A2. Really bear down on this inspection because there are a lot of different ways a short circuit in the cord could fire a round before you press the button.



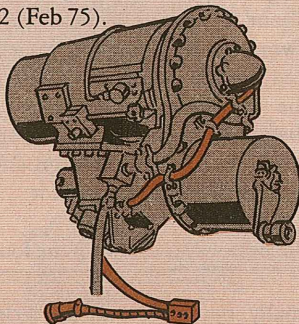
BY THE WAY, THE 2 CORDS LOOK ALIKE EXCEPT THE M60A2 CORD IS A LITTLE BIT LONGER.

HOWEVER, THEY ARE NOT INTERCHANGEABLE!

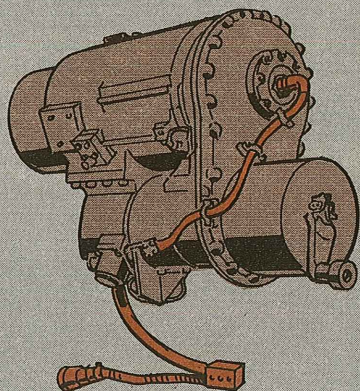
The "U" cords on all M60A2 tanks and M551/M551A1 Sheridans must be inspected by your turret mechanics before the main gun is fired again. This inspection will be repeated quarterly after that as part of the regular Q service. If the cable can't pass inspection, replace it.

Every cable must pass a 2-part inspection including:

**First—Proper installation.** For the M60A2 this must conform to Fig 2-145 on page 2-669 of TM 9-2350-232-20-2 (Feb 75).



For the M551/M551A1 it must be like Fig 11-12 on page 11-13 of Ch 10 to TM 9-2350-230-12 (Jun 66).

**ROUND FIRED**

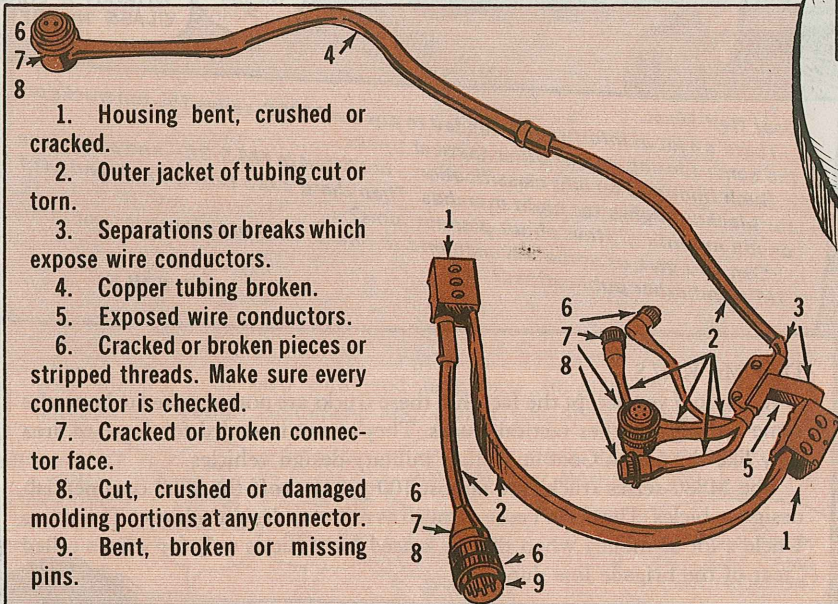
VOTE FOR JONES

NOT A JONES FAN, EH?

NAH—HE DIDN'T CHECK THE CABLE ASSEMBLY!

Second—Eyeball the whole cable assembly. If you find any of these conditions, the cable flunks the test and must be replaced:

1. Housing bent, crushed or cracked.
2. Outer jacket of tubing cut or torn.
3. Separations or breaks which expose wire conductors.
4. Copper tubing broken.
5. Exposed wire conductors.
6. Cracked or broken pieces or stripped threads. Make sure every connector is checked.
7. Cracked or broken connector face.
8. Cut, crushed or damaged molding portions at any connector.
9. Bent, broken or missing pins.



In addition to the 2-part inspection, Sheridan will not work on the M60A2 for both M60A2 and M551 series cables, the M551 series cables also must be given an electrical test using the fault isolation test set (table 2-4 in TM 9-4933-216-12). Cables will be replaced if they flunk this test even if they pass the 2-part test. The M60A2 cables get only the 2-part test, because the fault isolation test set for the

Sheridan will not work on the M60A2 tanks.

All this good stuff will be in the EIR and Maintenance Digest TB 43-0001-36-3 and in future changes to the TM's.

Don't wait, tho. Get these tests done before you fire again.

YOU'LL BE GLAD YOU DID!



M880-SERIES  
1 1/4-TON  
TRUCK ...

# WEIGHT CLASS... AND OTHER "MAYBE'S"

DUNNO--IT'S  
NOT LISTED IN  
FM 5-36.

HAVE  
A HEART,  
WILLYA  
?

SORRY.. YA  
CAN'T CROSS  
OUR BRIDGE  
WITHOUT A LOAD  
CLASS  
NUMBER!

Dear Half-Mast,  
There's a lot of information needed to put our M880-series 1 1/4-ton trucks on the same footing as our other tactical trucks. Such things as weight classification—not listed in FM 5-36—and provisions for blackout lights for night marches. Then there's fire extinguisher and M11 decon mounting. How about pioneer tools?  
Can you give us some advance info to tide us over until it comes out in the TM's and other publications?

CW2 K.W.S.

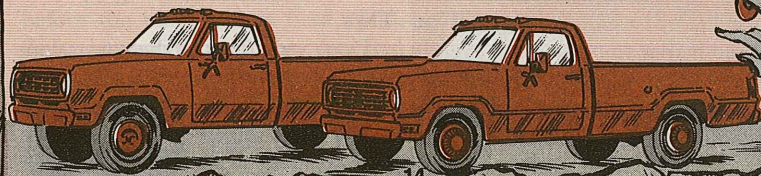
Dear Mr. K.W.S.,

It'll help if you accept the fact that these trucks are not supposed to be on the same footing as other tactical trucks. They're not intended for forward area duty like the Gama Goat and other military-design vehicles.

The M880-series trucks are almost 100 per cent off-the-shelf commercial-design vehicles. They don't cost as much as military-design vehicles. This saves Uncle a lot of money when there's a need for vehicles only for what's called "rear of the brigade line duty."

CLOSER THAN KISSIN'  
COUSINS. EXCEPT FOR THE  
FANCY PAINT AND A FEW  
DOODADS...

...THESE CIVILIAN  
TRUCKS ARE ALMOST  
TWINNS OF YOUR M880-  
SERIES VEHICLES.



So the TOE's for some outfits specify Gama Goat 1 1/4-ton vehicles, while others call for M880-series vehicles.

But what your M880's are actually used for is up to your own command. And if you have mission requirements that go beyond what's normally intended for



your M880's, your own command may have to give you a steer—like authorizing "extra" equipment and giving you specific instructions for

WHAT ABOUT  
A FIRE  
EXTINGUISHER,  
SARGE?

...AN'  
TH' M11  
DECON  
BRACKET  
?

...AN' TH'  
PIONEER  
TOOLS?

WELL, THE BOOK SAYS NO,  
BUT THE OLD MAN SAYS GO,  
SO...

HEY, HERE'S  
THE POOP FROM  
S4--JUST CAME  
DOWN FROM G4!



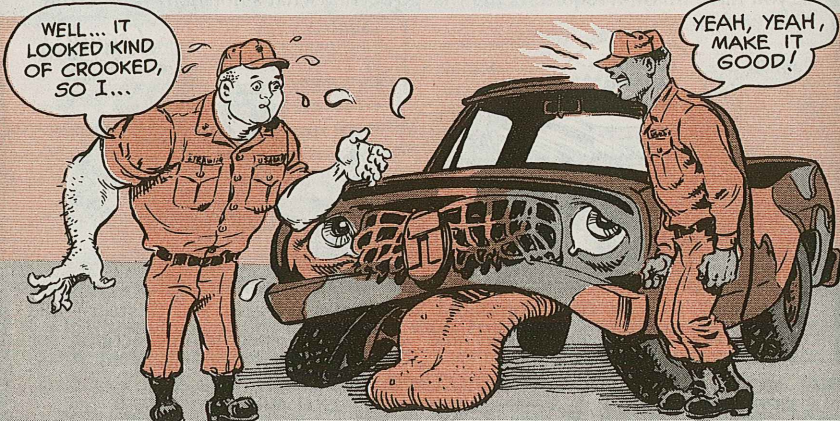
mounting or stowing this equipment. This's mostly a matter of common sense—picking a location where the equipment is handy to reach but won't be in your way.

You could mount the M11 decon bracket behind the driver's seat by drilling 2 holes in the rear of the cab body for the bracket screws.

Fire extinguishers are standard equipment for the ambulances, but you can mount one in the cargo truck—on the driver's side, between the door and seat. This calls for drilling 2 holes in the cab floor. Watch that the extinguisher doesn't get in the way of seat operation.

Blackout lights may be coming—it's not for sure yet. In the meantime, you can just tape over your park and tail lights, leaving a thin slit or small hole in the tape for a pinpoint of light.

If you have a specific requirement for displaying the vehicle weight classification, your command can authorize the kit, NSN 9905-00-565-6267, mentioned in TB 43-0209 (Oct 76). Careful, though, because the M880



radiator grill won't take a lot of rough treatment. Recommended for mounting the kit is Screw, cap, NSN 5305-00-921-0929; Nut, self-locking, NSN 5310-00-959-7600; and Washer, flat, NSN 5310-00-215-7811.



WEIGHT CLASS FIGURES ARE...

		EMPTY	LOADED	
			Cross-country	High-way
Truck, cargo,	4x4 M880	2	4	4
Truck, cargo,	4x2, M890	2	4	4
Truck, ambulance,	4x4, M886	3	4	4
Truck, ambulance,	4x2, M893	3	3	3

## GOT A BETTER IDEA?



You may have an idea for a better way to troubleshoot your equipment. Or an idea for a better piece of test, measurement or diagnostic equipment.

So why not let everybody else in the Army in on it? And maybe win some money, too?

Put in an Official Suggestion—DA Form 2440. Show how your idea is easier . . . and saves money . . . and does a better job. If you've worked up an item of test equipment, include a drawing or photograph with your suggestion. And be ready to send in the hardware if it's needed to evaluate your suggestion.

Finally, at the end of your suggestion form, recommend that your suggestion be evaluated by the test, measurement and diagnostic equipment people at: US Army Maintenance Management Center, ATTN: DRXMD-T, Lexington, KY 40511.



## TURN SIGNAL REPAIR

Did you miss it? Pages 35-37 of TB 43-0001-39-1 (Apr 76) give the poop on repairing those plastic turn signal controls that come apart when the screws tear out. It's also good for new controls—to keep 'em from coming apart.

## NEW FOR TIRE VALVE

There's a better inner dual wheel tire valve extension available for your M39/M809-series 5-ton trucks. It comes with NSN 2640-00-250-2474. It replaces extension NSN 2640-00-200-1934, bracket NSN 5340-00-408-4800 and bracket nut NSN 5310-00-482-1025.

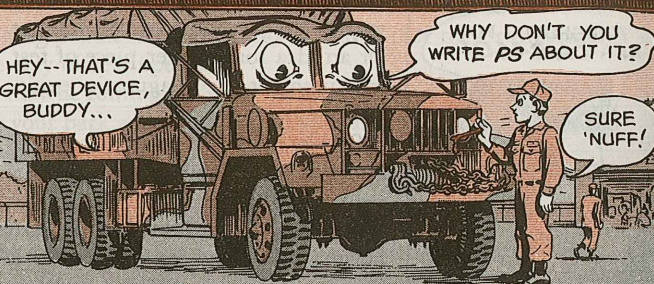
TM-209-SERIES  
2½-TON  
TRUCK ...

# WINCH

HEY-- THAT'S A GREAT DEVICE, BUDDY...

WHY DON'T YOU WRITE PS ABOUT IT?

SURE 'NUFF!

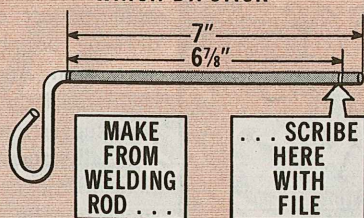


Dear Editor,

We have devised a dipstick to check the lubrication level in the front winch on a 2½-ton truck. It's a welding rod, marked with a file at 6⅞ inches, the full level specified in Note 5, LO 9-2320-209-12 (Oct 71).

Norman B. Johnson  
AMSA 127  
Greenville, SC

## WINCH DIPSTICK



(Ed Note: Good thinking! Besides being easy and quick to make, that tool does a job that's too often neglected— or is done wrong.

Some drivers goof when they try to check the lube level in the 2½-ton truck's winch end frame housing. They think they should take out a side plug—so they mess around with the drag brake adjusting screw. This can foul up the drag brake tension. Then there's nothing to stop the winch drum from overrunning the cable when it's pulled.

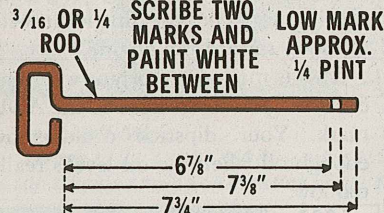
Or they don't read the LO. And they think the lube level's supposed to be up to the check-fill hole on top—a matter of several quarts.

One pint is all it gets—like the LO says. That's when there's none in there to begin with.

THIS IS WHERE YOU CHECK THE LUBE LEVEL—AND WHERE YOU ADD LUBE IF NEEDED

# DIPSTICK

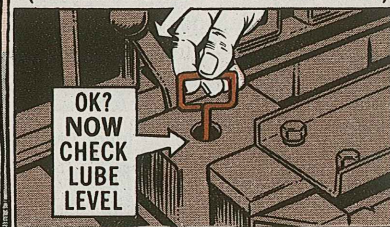
If you want to go to the extra trouble, you can make a dipstick like's been in PS a couple of times.



Besides a FULL mark at 6⅞ inches, it's got a mark at 7⅞ inches. This shows the lube level at about ¼ pint below FULL, so you can add just that much to bring the level up to FULL.

One more word to those who haven't used this kind of dipstick before—make sure the winch clutch

WINCH CLUTCH LEVER ENGAGED? ... (IT MUST BE ALL THE WAY TO LEFT)



lever is in the engaged position. That's all the way over to your left as you face the winch.)

M35A2, M54A2 CARGO TRUCKS

## DATA PLATES and NSN'S

Coming up short on some of the data plates for your M35A2 2½-ton and M54A2 5-ton cargo trucks?

NSN 9905-00-117-9294 gets you the Service Publication Data Plate for all 2½-ton vehicles with multi-fuel engines.

HERE ARE STOCK NUMBERS FOR WEIGHT/ DIMENSION DATA PLATES OF THESE TWO TRUCKS...

M35A2 with winch, NSN 9905-00-930-8230  
M35A2 without winch, NSN 9905-00-930-8229  
M54A2 with winch, NSN 9905-00-491-6842  
M54A2 without winch, NSN 9905-00-911-5624

TM-218-SERIES ¼-TON TRUCK . . .

# OIL LEVEL SAFE?

Are you sure you've got enough oil in your M151A2 ¼-ton truck's engine for safe operation? At least over the ADD mark?

Maybe. It depends on how you put the dipstick in—with the finger loop away from the engine or in toward the engine.

You get the right oil level reading only when the finger loop is out away from the engine.

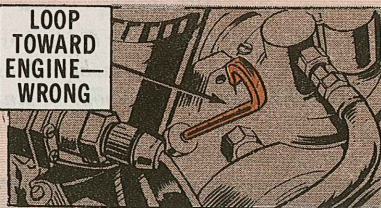


LOOP AWAY FROM ENGINE—RIGHT



You'll get a wrong—higher—reading if you put the dipstick in with the loop toward the engine.

This is mighty important when the oil level gets down close to the ADD mark. Your dipstick could show enough oil when the oil level's really too low.



Get it right. Dipstick loop away from the engine. Safe oil level between ADD and FULL.

## M416 CABLE'S TOO MUCH



You'll get too much cable with NSN 2590-00-830-6663 listed on page 51 of TM 9-2330-251-14 (Oct 70). Get the 60-in intervehicular cable, NSN 2590-00-855-9304, for your M416 ¼-ton trailer.

### Next Month In LS

M60A2 TANK COMPRESSORS



4,000-LB TRACTOR TUG



AN/GRC-106 PM TOGETHERNESS



VULCAN

M880-SERIES ¼-TON TRUCK . . .

# OIL LEVEL TOO HIGH?



Dear Half-Mast,

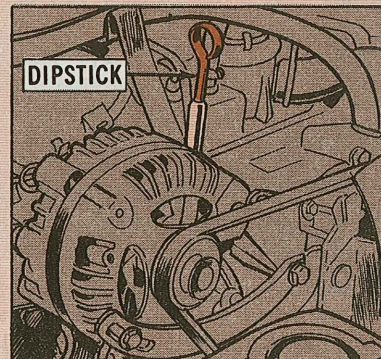
Does FULL on the M880-series ¼-ton truck's engine oil dipstick apply to a cold check or hot check?

I check the oil level before I start out. If it's below FULL, I add oil to bring it up to the mark.

But then, when I get stopped for a roadside spot-check, the oil level's over FULL, and they say I've got too much oil in the engine.

Can you clear it up?

PFC R.O.K.

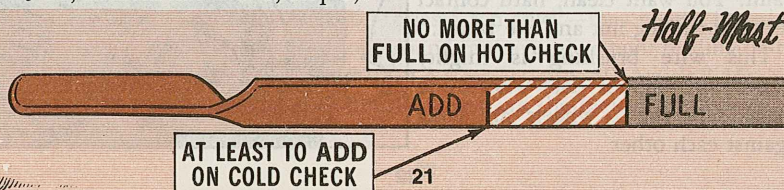


Dear PFC R.O.K.,

If you put the pieces together, in TM 9-2320-266-10 (Jan 76), it comes out like this:

**COLD CHECK**—Just see if the oil level is at least above the ADD mark. This is to make sure you've got enough oil to operate the engine safely. (See PM Checks & Services, page 3-9, Item No. 4.)

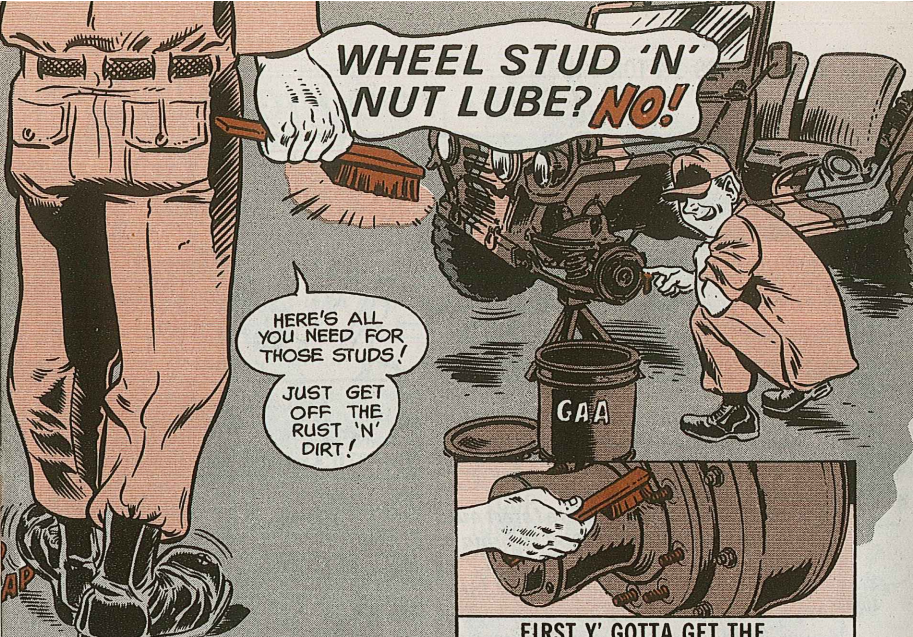
**HOT CHECK**—After the engine has reached normal operating temperature, shut it down and wait for 2 minutes. Then check the oil level. If it's below FULL, add oil to bring it up to the mark. If it's over FULL, you've got to drain some to bring it down to the FULL mark. (See Trouble-shooting, page 3-20, Malfunction No. 8, Step 2).



**WHEEL STUD 'N'  
NUT LUBE? NO!**

HERE'S ALL  
YOU NEED FOR  
THOSE STUDS!

JUST GET  
OFF THE  
RUST 'N'  
DIRT!



Hold it!

You never put oil or grease on a wheel stud or lug nut. If you get 'em all slopped up with lube, there's a good chance the nuts'll loosen. Then the stud'll break off.

And then the wheel will fall off!

Lug nuts hold best when the threads are just clean and true. No dirt, no rust, no bugged threads—and no lube.

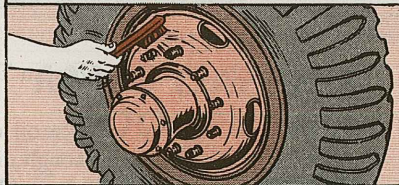
When you've got the nuts off, take a wire brush to the stud threads to get off dirt 'n' rust.

Hit the wheel with your wire brush, too. Get rid of dirt, rust and loose paint. You want clean, hard contact between the lug nut and the wheel.

This wire brushing is mighty important, too, for dual wheels—to make sure the 2 wheels are snug against each other.

**FIRST Y' GOTTA GET THE  
STUDS 'N' HUB CLEAN. NO DIRT,  
RUST OR LOOSE PAINT.**

**THEN WIRE BRUSH BOTH SIDES OF  
THE RIM—AND THE CAP NUTS.**



**CLEAN BOTH SIDES OF THE WHEEL RIM,  
TOO. IF THE LUG NUTS DON'T START  
EASY, LOOK FOR BUGGED THREADS  
IN THE NUTS OR ON THE CAP NUTS.**



## SMALL RIM ADAPTER

Dear Half-Mast,  
We've got one of those electrically-operated Bishman 931A tire moulder-demounters, and it sure saves a lot of work changing truck tires. We change a lot of sedan tires, and that changer's not worth much on those small rims. Is there an adapter for 14-16 inch rims?

LT B. K.

YOU'VE  
GOT TO GO  
THE  
EXCEPTION  
DATA  
ROUTE,  
SIR.



Dear LT B. K.,

There sure is, but you'll have to order it by exception data (Routing Identifier Code B 14). There's no NSN for it. It's Small Wheel Adapter, P/N 9850, manufactured by Bishman Div of Royal Industries, manufacturer's code 70932.

## M149 DRAIN PLUG BUSHING



The drain plug in TM 9-2330-267-14 (Jun 71) in Fig 24, Item 7, needs a bushing to fit into the M149 trailer tank body. Use Part No. 7035106 or P/N 10944795 to order the bushing by exception data request from U.S. Army Tank-Automotive Materiel Readiness Command (TARCOM). Routing Identifier Code is AKZ.

## FIX FUEL FOOLER

Your M813—or other TM-260-series 5-ton truck—may have a fouled-up fuel transmitter. A poor electrical ground can give you a bum reading on the fuel gage. The fix is in TB 43-0001-39-3 (Oct 75), page 39, Article 2-16c. You just make a new ground by running a wire from the fuel transmitter to the nearest bolt on the frame.

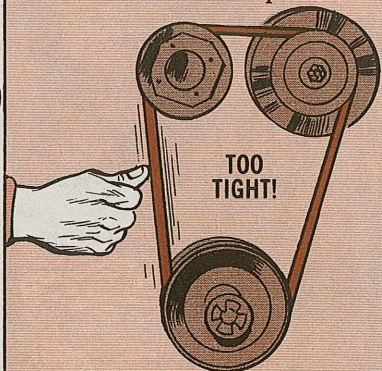
NO  
SPARKLE,  
NO SHOW,  
BUT ...

HEY, YOU OPERATORS  
...NEVER FORGET TO  
SEE IF YOUR  
V-BELTS ARE  
SUFFERING  
FROM ANY OF  
THESE COMMON  
TROUBLES...

# V-BELTS

# MEAN "GO!"

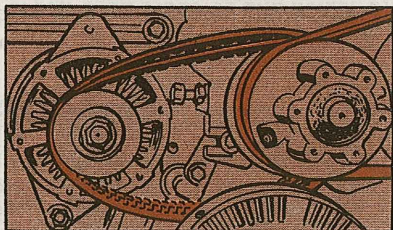
**TOO TIGHT**—Belts over-tight wear themselves out fast ... put too much



pressure on shaft bearings ... get shot down too soon. About 1/2-in deflection per foot of belt between pulleys is OK.



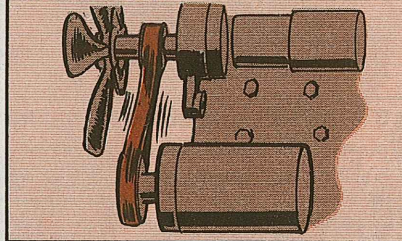
**TOO LOOSE**—Belts running with too much slack slip and fray.



They cause generators to charge too low; they let cooling fans run too slow.

24

**PULLEY ALINEMENT**—Pulleys out of line chafe the belt faces and shorten belt life.



**DAMAGED PULLEYS**—Chop on belts like knife blades.



**OVERLOAD**—Belts too small for the job (about the right length, but not broad enough or thick enough) will also wear out fast. Even with the right tension, they'll slip. A shiny groove



bottom tells you the belt's too small for the pulley. Or that the pulley's worn out.

THEY NEVER NEED  
LUBE OR PAINT...  
YOU NEVER  
SHINE 'EM...

YOU SELDOM  
EVEN SEE 'EM  
WORK...

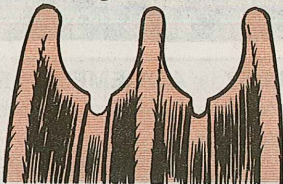
BUT  
NEVER  
FORGET  
THEY'RE  
THERE!

25

PS MORE



**PULLEY GROOVE WEAR**—Worn or dished-out grooves cut down belt



action. When sand or gravel get between belts and pulley faces, yow!

**STORAGE**—Store 'em in a cool, dry place . . . in matched sets. Heat causes cracking and shrinkage. If you hang



'em on racks, be sure they're out of the sunlight. Stack 'em, if in cartons.

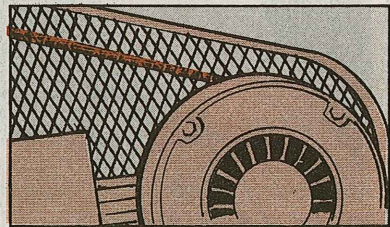
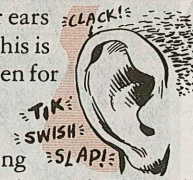
**CLEANING**—Oils and lubes weaken belts and cause 'em to slip. So wipe off the lube, clean the belt with drycleaning solvent, and wipe 'em dry again.



**REPLACEMENT**—Belts in sets are replaced in sets. Old belts stretch, but a new one put in with the old gets the whole load. Even if only one belt shows wear, change the whole set.

**MECHANICAL INTERFERENCE**

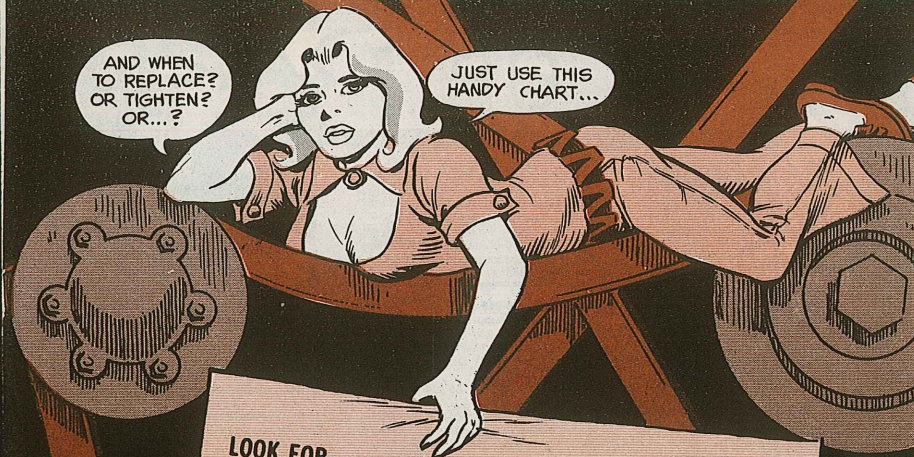
—Sometimes your ears can tell you when this is your problem. Listen for any ticking, slap or swish that'll tell you the belt's hitting something, like a belt guard. You can't always hear when there's trouble, because other noises can drown out



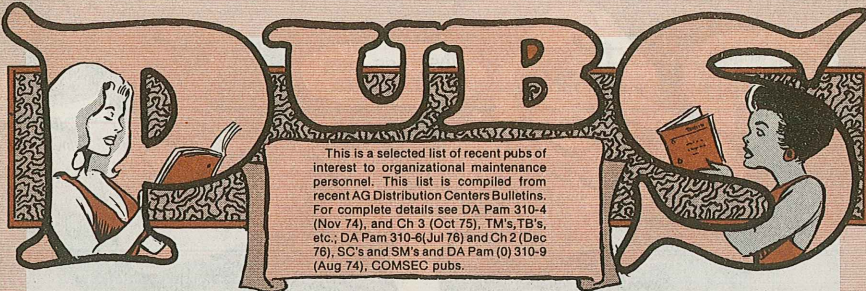
belt problems. So when you pull PM, eyeball and feel to make sure your belt's in the clear.

AND WHEN TO REPLACE? OR TIGHTEN? OR...?

JUST USE THIS HANDY CHART...



LOOK FOR	CAUSED BY	FIX IT BY
Belt slippage	Tension too low Grease or oil Wrong belt size Worn pulleys	Tighten belt Wipe it clean Use right belt Switch pulleys
Belt cracking	Overheating Overtightening Over-Age	Find cause of heat Adjust tension Replace belt
Rapid wear	Overloading, grit/ sand, belt mismatch (in sets)	Eliminate grit, use complete sets, right sizes
Pulley bottom shiny	Worn-out pulley Belt too narrow	Replace pulley Use right belt
Pulley wobble	Shaft bent, worn bushing	Get shaft replaced Get new bushing
Edge-fray on belt	Chipped/bent pulley	Replace pulley
Ticking noise	Belt rubbing guard or lines	Remove obstacles
Belt squeal	Overload Loose belt	Get proper belt Tighten belt



This is a selected list of recent pubs of interest to organizational maintenance personnel. This list is compiled from recent AG Distribution Centers Bulletins. For complete details see DA Pam 310-4 (Nov 74), and Ch 3 (Oct 75), TM's, TB's, etc.; DA Pam 310-6 (Jul 76) and Ch 2 (Dec 76), SC's and SM's and DA Pam (O) 310-9 (Aug 74), COMSEC pubs.

#### TECHNICAL MANUALS

Ch 1, TM 3-4240-279-20&P Dec M17/17A1 Mask  
 Ch 1, TM 3-6665-308-10 Sep AN-M2 Water Testing Kit, ABC-M30A1 Chemical Agent Detector Refill Kit  
 Ch 2, TM 5-6350-262-14/14 Nov Joint-Services Interior Intrusion Detection System J-SIIDS  
 Ch 3, TM 5-6350-262-14/14 Nov J-SIIDS  
 TM 9-1440-418-20P Sep BATS  
 TM 9-1410-375-20P Oct Pershing 1A  
 TM 9-1410-485-20P Nov Lance  
 TM 9-1430-526-24P Jan Improved HAWK  
 TM 9-1430-535-24P Sep Improved HAWK  
 TM 9-1430-588-20P Nov Radar AN/MPQ-49  
 Ch 6, TM 9-2320-206-20 Nov 10-Ton Truck, M123, M125-Series  
 TM 9-2320-209-10/1 Oct 2½-Ton Multifuel Engine Trucks  
 Ch 3, TM 9-2320-233-20 Jan 8-Ton Truck Ch 1, TM 9-2320-260-20 Nov 5-Ton Truck, M809-Series  
 Ch 1, TM 9-2320-266-34P Nov 1½-Ton Truck, M880-Series  
 Ch 1, TM 9-2350-215-ESC Nov M60/M60A1 Tanks  
 TM 9-4935-385-20P Sep Pershing 1A  
 TM 9-6920-530-24P Oct Improved HAWK  
 TM 11-5805-337-20P Nov AN/FCC-19, -25 Telegraph Terminal  
 Ch 9, TM 11-5815-204-20 Dec AN/GRC-46(1) Radio Teletypewriter Set

TM 11-5815-223-24P Nov MX-7778 Electrical Transient Suppressor  
 Ch 4, TM 11-5815-238-12 Nov AN/GGC-3(0), A/GGC-5(3), TT-76(1) & TT-69(1)  
 TM 11-5820-467-24P Dec AN/GRA-50 Antenna Group  
 TM 11-5820-759-20P Dec AN/GRC-165 Radio Set  
 TM 11-5821-311-20P Dec RT-1167/ARC-164(V) Receiver-Transmitter  
 Ch 9, TM 11-5840-298-12 Nov AN/PPS-5(1) Radar  
 TM 11-5855-249-10 Nov AN/VVS-2(V) Night Vision Driver's Viewer  
 TM 11-5895-585-24P Nov AN/MRC-115 Radio Terminal Set  
 TM 11-5985-262-20P Dec AS-1729/VRC Antenna  
 TM 11-6625-366-10 Nov TS-352B/U Multimeter  
 TM 11-6625-601-20P Dec MK-733/ARC-54 Electronic Expt Maint Kit  
 TM 11-6625-822-20P Nov SG-321B/U Signal Gen  
 TM 11-6625-1621-20P Dec AN/PRM-31(1) Test Sets  
 TM 11-6625-2384-20P Sep AN/USM-272 Signal Gen  
 TM 38-230-1 Sep Packaging, Materiel Preserv (Vol I)  
 TM 55-1510-209-23-1, Vol I; -2, Vol II Dec Unit and Intermediate Maint U-21A, RU-21A, RU-21D  
 TM 55-1510-214-23 Oct Unit and Intermediate Maint RU-21B, RU-21C

TM 55-1510-215-23-1, Vol I; -2, Vol II Dec Unit and Intermediate Maint U-21G, RU-21E, RU-21H  
 Ch 9, TM 55-1520-210-PMS Sep UH-ID/H  
 TM 55-1520-214-10 Dec OH-6A  
 TM 55-2840-229-23P Sep T-53 Engine

#### MISCELLANEOUS

Ch 1, AR 750-58, Oct: Maint of Supplies & Equipment  
 FM 9-45K1/2 Jul Tank Turret Repairman Skill Level 1 and 2  
 LO 3-1040-225-12 Sep Compressor, Recip 50-CFM, 3,000-PSI Davey  
 LO 9-2320-209-12/1 Sep 2½-Ton Truck  
 LO 9-2320-211-12 Nov 5-Ton Truck, M39-Series  
 LO 9-2350-256-12 Jul M88A1 Recovery Vehicle  
 SB 708-21 Jan Fed Supply Class Part I—Groups and Classes  
 SB 742-1336-92-012 Dec Missile Components, Improved HAWK  
 SB 742-1336-92-014 Dec Missile Components, Improved HAWK  
 SB 742-1337-92-015 Dec Missile Components, Improved HAWK  
 TB 9-1425-485-10 Nov Lance  
 TB 11-5830-340-12 Nov Keep Your AN/VIC-1 Peaked Up  
 TB 55-1500-337-24 Dec Phased Maint System—Army Aircraft  
 TB 55-8100-200-24 Dec Maint of Reusable Containers for Aircraft Expt

#### AUDIO-VISUAL STUFF— Available at Your Local TASS

**TEC LESSONS**  
 020-171-1628-E Prepare M551 for Swimming  
 020-171-5305-F Servicing, Maint Top-Loading Air Cleaner  
 020-171-5306-F Servicing, Maint Side-Loading Air Cleaner  
 043-441-5941-F Vulcan  
 201-113-4501-F Prep Radio Set AN/PRC-77 for Operation Part I (Installation)  
 201-113-4503-F Presetting Freq on Radio AN/PRC-77  
 201-113-4506-F Install Radio

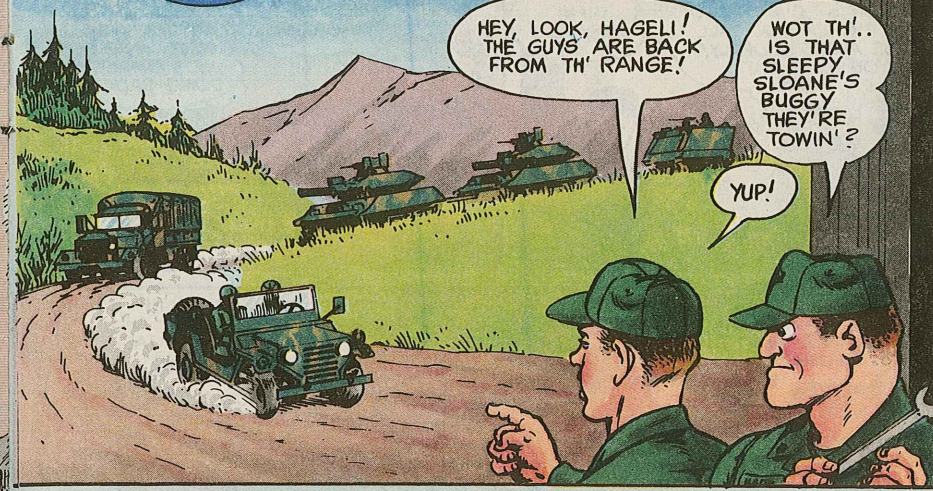
Set AN/GRC-106, Perform Preoperational Checks  
 201-113-4507-F Preliminary Start Procedure, Starting Procedure Radio Set AN/GRC-106  
 201-113-4508-F Tuning Procedures, Operating, Stopping Procedure for Radio Set AN/GRC-106  
 201-113-4509-F Operator PM Checks, Services, Troubleshooting Radio AN/GRC-106  
 201-113-4512-F Control Group AN/GRA-6, Part II

201-113-4601-A Radio Teletypewriter Commo Procedures Part I  
 947-071-0106-F Claymore Mines—Intro, Circuit Testing, Emplacement

#### FILMS and MOVIES

GTA 3-5-12 M8 CS Cartridge Launcher  
 GTA 3-8-10 M9-Series Portable Flamethrower  
 GTA 5-4-29B Operation 6,000-lb Rough Terrain

Forklift Truck  
 GTA 5-4-30B Operation 10,000-lb Rough Terrain  
 Forklift Truck  
 GTA 7-1-26 M16A1 Rifle—Mechanical Training  
 GTA 9-9-4 M129 Machinegun Heater (Part II)  
 GTA 10-2-16 Tank and Pump Unit (Part II) Operating Procedures in Field  
 GTA 11-3-12 Radio Set AN/PRC-74-B  
 TF 38-4794 Preservation: Method II



HEY, LOOK, HAGELI! THE GUYS ARE BACK FROM TH' RANGE!  
 WOT TH'.. IS THAT SLEEPY SLOANE'S BUGGY THEY'RE TOWIN' ?  
 YUP!



WONDER WHAT AM LECTURE HE SLEPT THRU THIS TIME...  
 DUNNO, HERMAN! THEY HADDA FISH HIS RIG OUTTA TH' POND LAST TIME 'CAUSE HE HADN'T CHECKED TH' HULL DRAIN PLUGS!  
 YA REALLY HIT TH' FAN THIS TIME, SLEEPY!  
 YEH! BETCHA YER ENGINE'S GOTTA GO TO DSU FER OVERHAUL; SLEEPY!  
 AWW, BUG-OFF, WILLYA?



...AN' TH' HANDLE IS C.B. ... NOT "SLEEPY"!  
 OH, SLOANE... TH' OL' MAN WANTS T' SEE YOU IN HIS OFFICE!

### M2 Burner Unit

A new instruction decal for the M2 gasoline burner is available under NSN 7690-00-999-2509. This decal shows the new operating pressure of 6 to 8 PSI. It's listed on the AMDF for 38 cents.

### Trailer Tire Tale

No mounting kit for M101-series trailer spare tires has been developed for those trailers used with M880-series vehicles. So, you'll just have to load the spare in the trailer or the truck.





...AN' ALL I DID WAS SHUT TH' ENGINE DOWN T' SAVE ON FUEL!

CAN'T WIN FER LOSIN'!



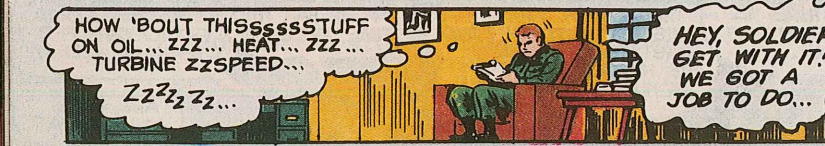
THANKS, SERGEANT!



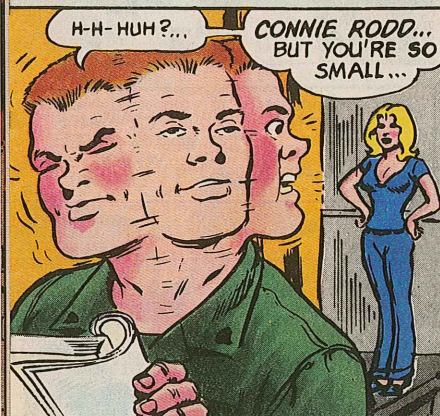
\* PS 192 and PS 249



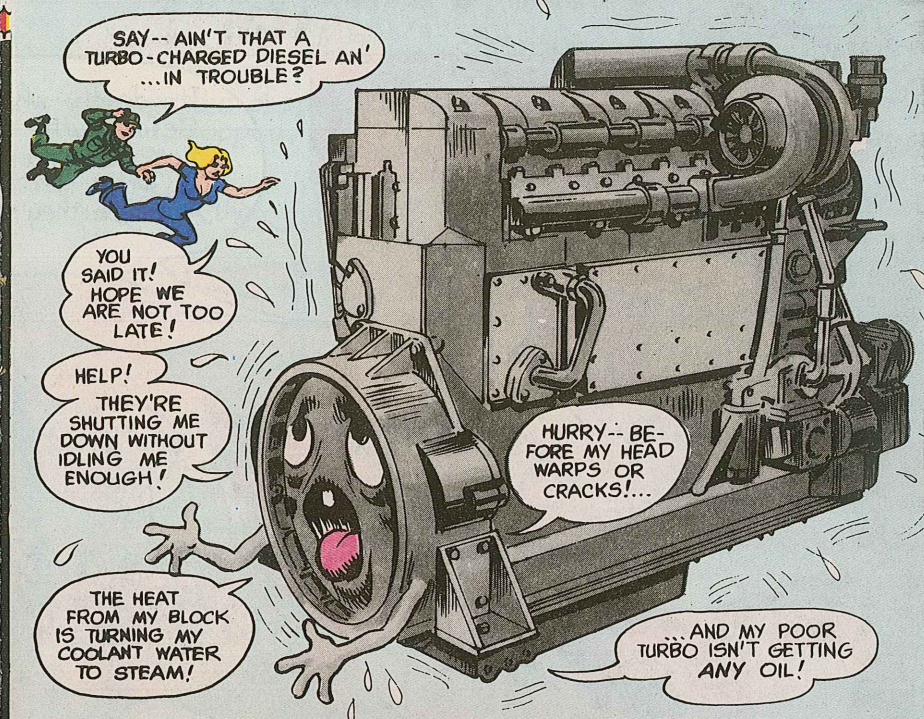
> YAWN! ... BEEN ON TH' GO SINCE 0400 ... AN'... GEE... HOW COMFORTABLE THIS CHAIR IS... ZZZ... NOW LET'S... EYEBALL TH' TM...



HEY, SOLDIER! GET WITH IT! WE GOT A JOB TO DO...



EASY!... WE'RE IN THE COMICS!



YOU SAID IT! HOPE WE ARE NOT TOO LATE!

HELP! THEY'RE SHUTTING ME DOWN WITHOUT IDLING ME ENOUGH!

HURRY-- BEFORE MY HEAD WARPS OR CRACKS!...

THE HEAT FROM MY BLOCK IS TURNING MY COOLANT WATER TO STEAM!

...AND MY POOR TURBO ISN'T GETTING ANY OIL!



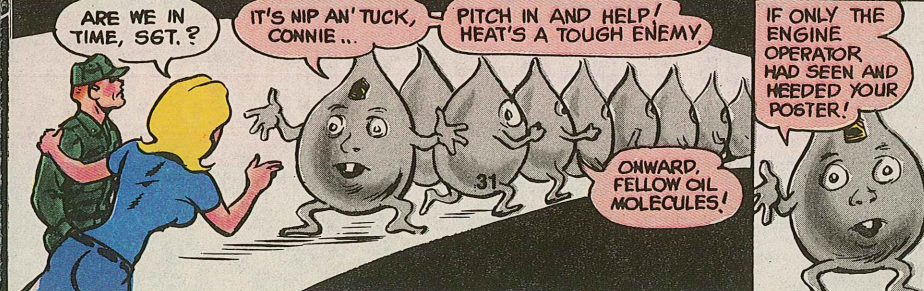
RIGHT ON! WE MUST GET DOWN TO OIL MOLECULE SIZE! NOW... QUICKLY!!

INTO THE OIL FILLER PIPE!



WE'RE NOW IN THE MAIN OIL GALLERY!

FASTER! WE'VE GOT TO REPORT TO SGT. EARLE...



IT'S NIP AN' TUCK, CONNIE...

PITCH IN AND HELP! HEAT'S A TOUGH ENEMY.

ONWARD, FELLOW OIL MOLECULES!

IF ONLY THE ENGINE OPERATOR HAD SEEN AND HEADED YOUR POSTER!

# Joe's Dope Sheet



It's deadly when engine speed's chopped  
Before turbo spinning has dropped,  
'Cause bearings must toil  
While getting no oil,  
And then they're just junk when they've stopped!

GOT MY  
EARS ON  
FOR YOU,  
CONNIE!

YOU'RE MY  
FAVORITE  
SEAT COVER,  
CONNIE!

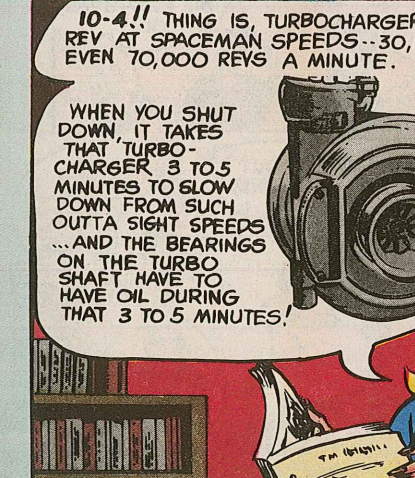
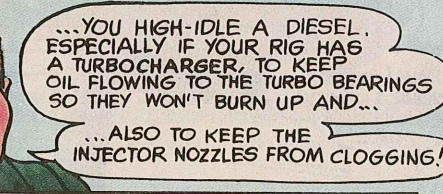
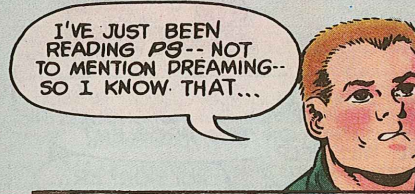
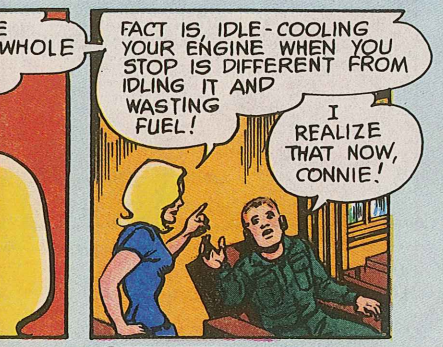
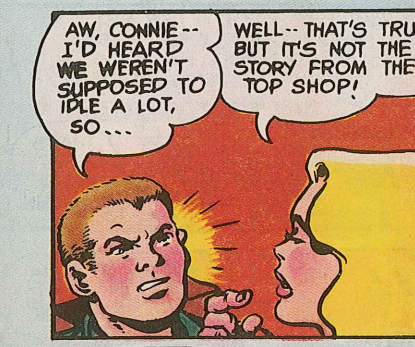
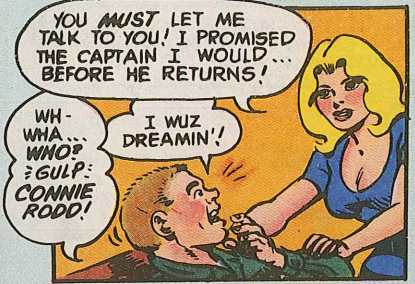
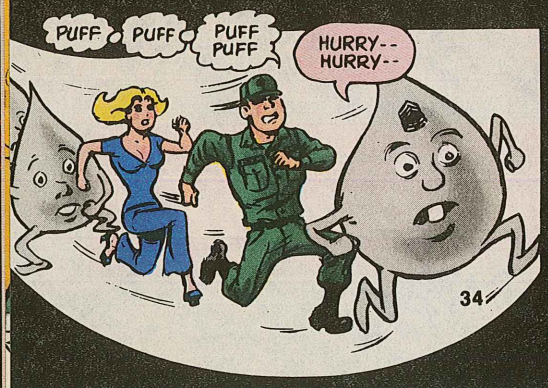
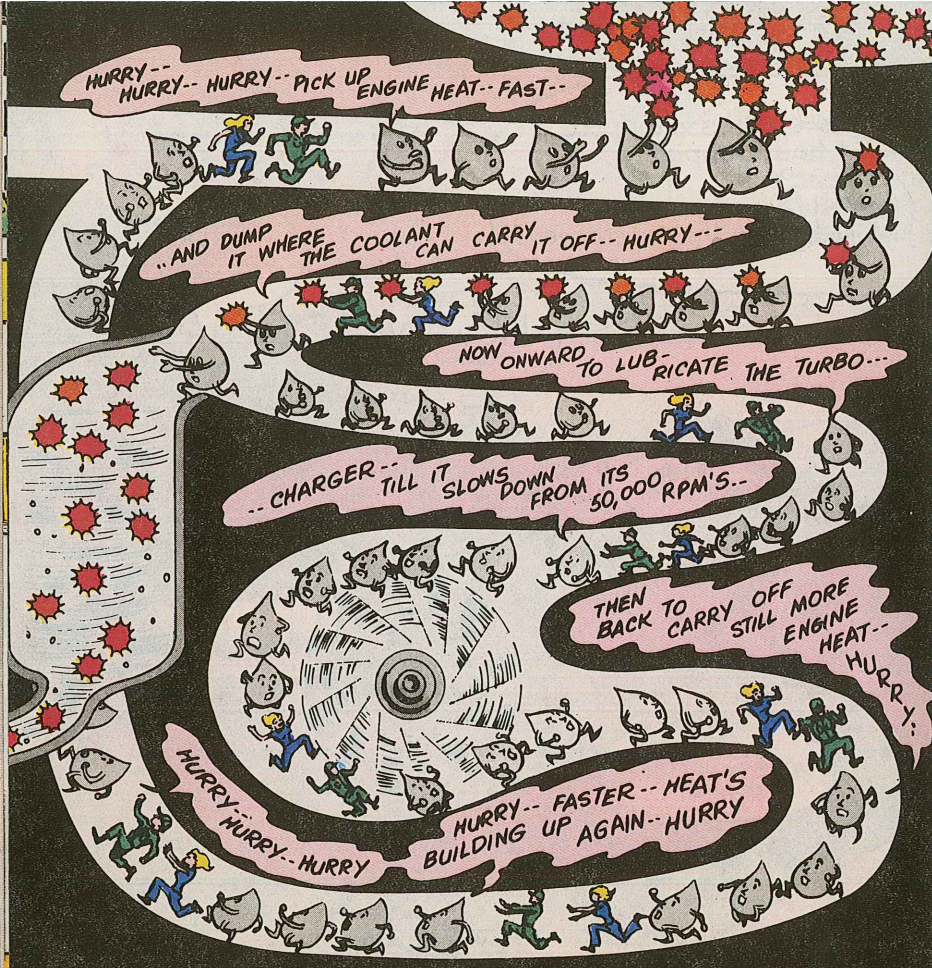
BIG  
IO-4!

BREAK  
ONE-NINE!

DIG YOUR  
"IDLE" CHATTER,  
CONNIE!

**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.



WHEN YOU IDLE YOUR ENGINE -- AT HIGH-IDLE RPM, THAT IS-- YOU PREVENT ENGINE BLOCK HEAT FROM MAKING STEAM OUT OF YOUR COOLING WATER.

THIS "AFTER SHUTOFF BOIL" CAN CRACK OR WARP THE HEAD OR THE VALVES--OR RUIN THE HEAD GASKETS. UNDERSTOOD?

BIG 10-4, CONNIE!

LO, CONNIE-- SEE YOU'VE GIVEN SLOANE THE WORD ON IDLING DOWN HIS RIG!

AT EASE!

MORE THAN ONE TIME IN THREE, SHUTTING DOWN TOO QUICK CAN SEND THE ENGINE TO OVERHAUL... BUT...

YOU'VE LUCKED OUT TODAY! I JUST GOT WORD FROM THE MECHS THAT WITH A NEW SET OF BEARINGS FOR YOUR TURBO, YOUR VEHICLE WILL BE BACK ON THE COMBAT READY ROSTER!

WHEW!

THAT'S GREAT NEWS, CAPTAIN...

BUT TAKE A LOOK AT THIS LETTER ISSUED BY OUR COMMAND-- IT SHOWS THAT THIS PROBLEM OF IDLING-DOWN IS ARMY WIDE...

LET'S SEE IT, CONNIE.

HMM! SLOANE, YOUR LUCK IS HOLDING UP...

SINCE YOU'VE LEARNED A GOOD LESSON TODAY-- I WANT YOU TO HONCHO A CLINIC IN OUR OUTFIT ON THIS PROBLEM! CONNIE WILL HELP YOU SET IT UP!

HOT DOG! ER... MY PLEASURE, SIR!

HOP TO IT!

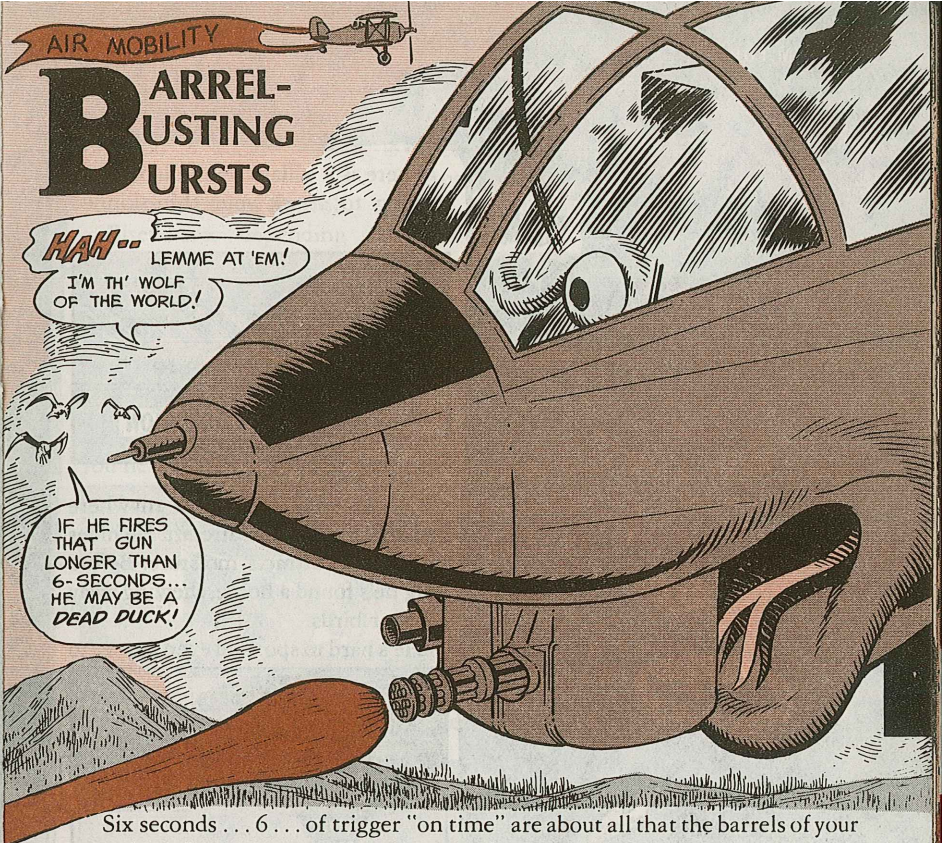
Y'KNOW, I CAN'T WAIT TO SPREAD TH' WORD, CONNIE...

I'M EVEN GOIN' TO PUT OUT A 10-17, TO ALL MY GOOD DIESEL BUDDIES WITH EARS... FOR SURE FOR SURE!!

# BARREL-BUSTING BURSTS

HAH-- LEMME AT 'EM!  
I'M TH' WOLF OF THE WORLD!

IF HE FIRES THAT GUN LONGER THAN 6-SECONDS... HE MAY BE A DEAD DUCK!



Six seconds... 6... of trigger "on time" are about all that the barrels of your M134 machine gun can take at one crack.

That's why a burst-limiting relay in the trigger circuit automatically cuts the gun off after those critical 6 seconds. The gun needs time to cool.

If you override the relay by re-engaging the trigger, the barrels will overheat... and burst, as they have. You could put some mighty expensive holes in your Cobra. Maybe worse.

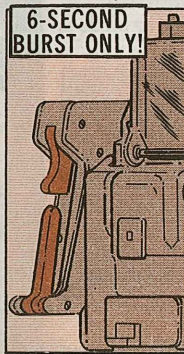
Here's a gunner's guide:

If your AH-1G, Q or S is hovering, allow a 2-minute cooling period after each 6-second burst.

If your bird is in normal flight, allow a 1-minute cool-off after each 6-second burst.

Both cooling-off periods are being added to TM 55-1520-221-10 and -10-1.

STAY AWAY FROM THE TRIGGER DURING EITHER COOLING PERIOD!



# BRUTE CONTROL



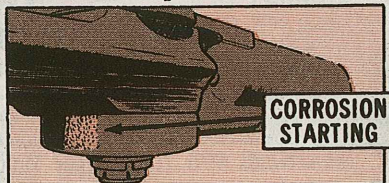
There is a villain on the loose, just waiting to attack your thin-skinned aircraft.



His name? Corrosion!

Corrosion gets his start anywhere and any time on your aircraft. He hides in dirt that attracts moisture. Before long he's found a home, chewing away on your birds.

He's hard to spot and even harder to



stop. The only way you can deal with this menace is to keep him under control, with regular preventive maintenance.

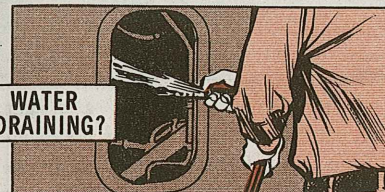
Routine cleaning of all your birds is a "must".



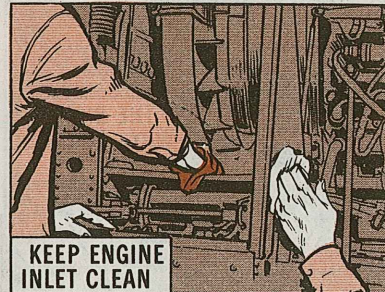
If you're located in a coastal area, salt in the air helps to breed more of his kind. A weekly washing is called for in para 2-9 of TM 43-0105 (Apr 76), on corrosion control.

Elsewhere, depending on local weather conditions, monthly washings are in order.

TM 55-1500-333-24 (Oct 74), Cleaning Procedures For Army Aircraft, has all the info on cleaning your birds. When you make with the soap suds, be sure all drain holes are open so you never end up with trapped water.



Also, clean dirt out of crevices and seams . . . any place where the brute can breed.

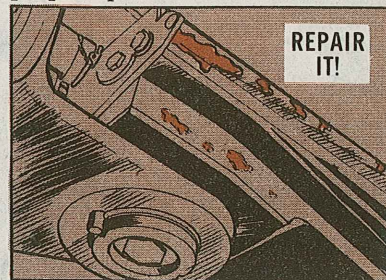


Corrosion is at work where nicks, digs and scratches go thru the paint and into bare metal. So, repair the damage, now!

Sometimes corrosion is real sneaky and hides under paint. But you can spot him during your PM inspections,

in the form of a raised or puffed-up spot.

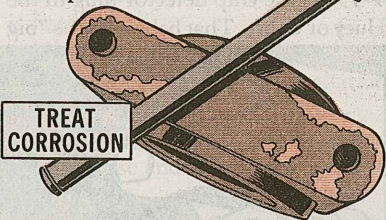
Course, the paint has to be removed. The metal is then cleaned, treated and repainted according to the poop in para 2-11 of TM 43-0105.



Your support outfit can be of help here.

Yessir-e-e-e, early detection of the villain will prevent major structural repairs and parts replacement to your aircraft. So during your checks, look behind fairings and access panels where he could get a toehold.

Stop him cold!



EARLY DETECTION—NO BIG REPAIRS



FOR WANT OF  
A TORQUE WRENCH...  
**THE BIRD WAS  
GROUNDED!**

LOOK WHAT YOU'VE DONE  
TO YOUR BIRD... GROUNDED!

B-BUT...

I DIDN'T  
KNOW THAT...

WELL,  
MAYBE I  
COULD'VE...

JUST B'CAUSE  
YOU COULDN'T  
BE BOTHERED  
TO GO TO TH'  
TOOL ROOM FER  
A TORQUE  
WRENCH!

NAAAAAAH...  
IT'S NOT SOME KIND OF  
OUTER-SPACE MONSTER...

...JUST A  
BALLOON WINDY  
SENT OVER FOR ARMED  
FORCES DAY PARADE.

?

!!

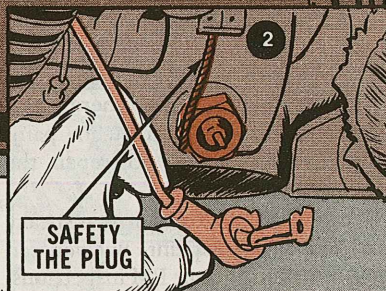
How important is using a torque wrench on aircraft parts? Just about the most important of all maintenance chores!

For example, you crewchiefs and your engine shop buddies can come to grief on the simple replacement of a T-53 engine chip detector plug in the Huey or Cobra. That baby gets the "big

An uncalibrated arm on a socket wrench handle, tho, means you'll go beyond that figure and strip out the threads in the accessory drive gear box. What follows is pure mayhem.



**THE RIGHT  
WAY—TORQUE  
PLUG**



**SAFETY  
THE PLUG**

look" frequently.

'Course, TM 55-2840-229-24 (Apr 71), page 11-11, item 32, shows that the plug gets torqued to 90-100 lb-in.



**TIGHTEN THE CENTER  
POST NUT TO NO  
MORE THAN 15 IN-LBS**

The engine has to be removed from the bird. After all, you can't tap the gear box for an insert and let the chips fall where they may—into the engine oil system!!

You never can tell if metal from the stripped threads got by the oil filter and into the oil cooler, either. To be on the safe side, the oil cooler in the bird

should be cleaned and the whole system checked.

Meanwhile, back in the engine shop, the accessory gear box comes off and is tapped for a new chip detector plug insert. 'Course, only so many inserts can be used. When the shop runs out of oversizes, due to several over-torques, a new accessory gear box is needed.

Finally, when you get the engine back in the bird an engine installation check is required.

Add up all the extra sweat and elbow grease and the picture becomes clear.

YOU'VE GOTTA  
GET THAT  
TORQUE WRENCH  
OUT OF THE  
TOOL ROOM!...

OK?

USE TORQUE WRENCHES . . .

## GUESSES MAKE MESSSES

Recently a Kiowa went out of control when self-locking nuts in the Thomas Coupling backed off.

The nuts hadn't been torqued right!

Both drag and specified important, and here's the word: Table 1-3, Part III, TM 55-1520-228-20 sets minimum drag torques for self-lockers 7/16-in and up. For smaller sizes . . . if drag is enough that you can't run them down without a wrench—they're A-OK.

Table 1-3, Part I, same TM puts specified torque on these quarter inchers at 50 to 70-in/lbs. To get the right total torque, add drag to specified torques.

SO, WHENEVER YOU'RE WORKING ON TAIL ROTOR DRIVE SHAFTS, CHECK THOMAS COUPLING NUTS FOR DRAG, REPLACE BAD ONES... THEN TORQUE THE LOT DOWN RIGHT!

THOMAS COUPLING NUTS

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## NO SUBSTITUTE, PLEASE!

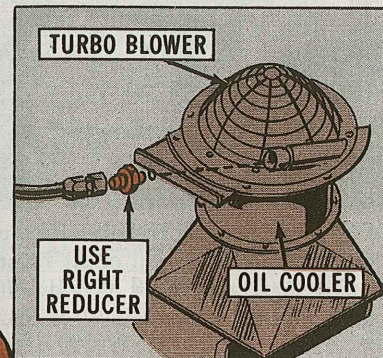
Any time you knucklebusters install the oil cooler turbine fan in your Cobra or Huey, focus in on the bleed air line reducer because it comes in 2 sizes.

A reducer that provides an increased air flow is used on the production AH-1S Model and AH-1G's modified to the "S" Model. Never use the increased flow reducer on other Cobra's and Huey's because the fan will overspeed and may tear apart.

The Cobra parts manuals are being corrected. Meanwhile, here's what you should ask for:

AH-1S; Modified "S" Model  
Reducer, P/N AN919-23D, NSN 4730-00-187-3596

All UH-1's; All Other AH-1's  
Reducer, P/N 204-060-494-1, NSN 4730-00-075-3715



## 2 FOR THE MONEY

CHEEE! I'M STILL VIBRATING!

TOO MANY GROMMETS!

GROMMETS—LEFT SIDE ONLY!!

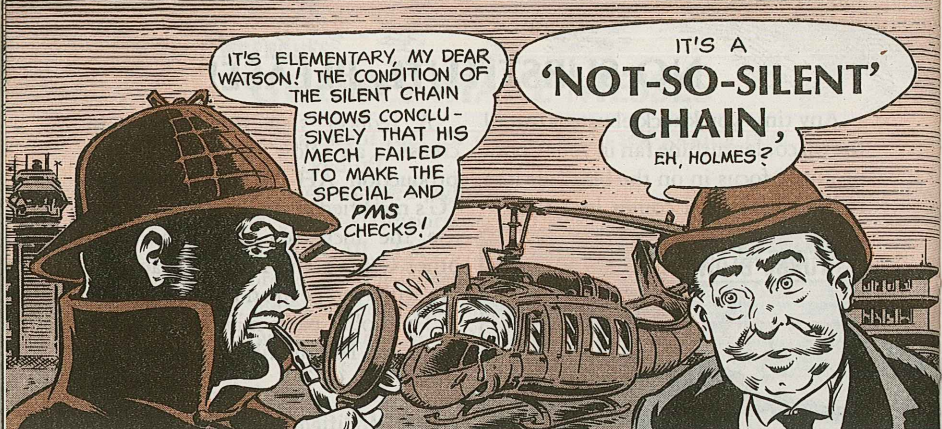
There's a tendency for mechs to use a grommet under all 4 mounting points on the Snake's engine oil cooler screen. Fight the urge, Cobra types!

Several screens have been broken when 4 grommets were used. Excess vibration can only be dampened out by using the 2 grommets called for in Fig 80 of TM 55-1520-221-20P (Aug 74).

The grommets, NSN 5325-00-263-6632, go under both mounts on the left

side of the screen. So, get rid of any grommets you may find on the right side of the screen.

43



IT'S ELEMENTARY, MY DEAR WATSON! THE CONDITION OF THE SILENT CHAIN SHOWS CONCLUSIVELY THAT HIS MECH FAILED TO MAKE THE SPECIAL AND PMS CHECKS!

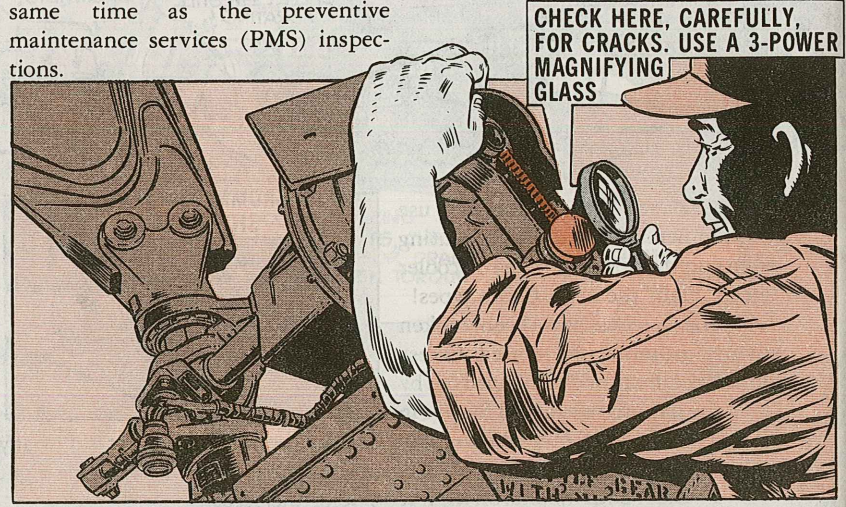
IT'S A 'NOT-SO-SILENT' CHAIN, EH, HOLMES?

The Huey and Cobra tail rotor silent chain is kickin' up a ruckus, birdmen, so inspect the chain for cracks more often.

Ch 25 (May 76) to TM 55-1520-210-20 now calls for a close look at the installed chain every 10 flight hours. Use a suitable light, with at least a 3-power magnifying glass. This is a special check that you don't do at the same time as the preventive maintenance services (PMS) inspections.

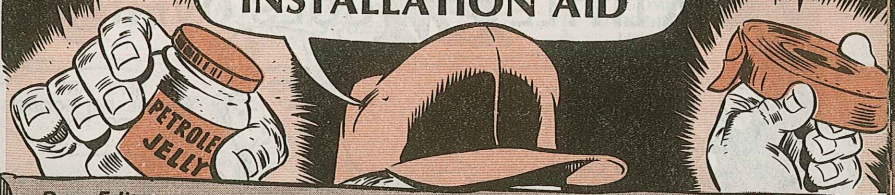
'Course, the PMS cards call for the removal and inspection of all silent chains for cracks every Periodic. If your bird has a dark chain, P/N 205-001-721-1, NSN 1615-00-172-4508 (made before July 1974) it also gets the big look every 2nd Intermediate inspection.

Hang in there, mechs, with those special and PMS checks!



CHECK HERE, CAREFULLY, FOR CRACKS. USE A 3-POWER MAGNIFYING GLASS

## BEARING INSTALLATION AID



Dear Editor,

Here's a time-saving Kiowa tail-rotor drive shaft installation tip that'll cut the chance of damaging bearings, bearing hangers and shaft splines.

Follow the step-by-step info in TM 55-1520-228-20 (Oct 72) para 7-26, but wrap a layer of pressure sensitive tape around the splines at the forward

end of the shaft. NSN 7510-00-472-4021 will get you a roll for \$4.05. Be sure to cover the splines and the first 1/4 inch of the smooth part of the shaft.

Use some petroleum jelly on the tape. When you've threaded the shaft through all 6 bearings, remove and discard the tape.

TAIL-ROTOR DRIVE SHAFT SPLINES



TAPE SPLINES... AND LUBE



SP5 Morgan D. Russell  
Louisiana ARNG

(Ed Note— Sounds real good.)

## THE RIGHT PUMP

Dear Editor,

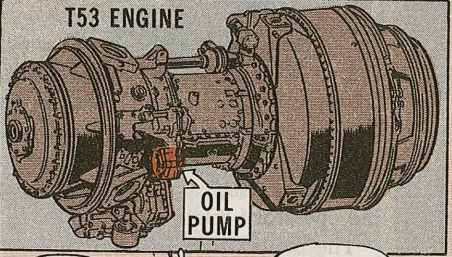
Mechanics, and even TI'sat units I've served with, don't agree on whether Seq. No. 5.31, TM 55-1520-210-PMS refers to an oil pump or to fuel pumps.

The Huey -20 and -34 make no reference to a "power driven rotary (booster) pump," but that's what the PMS says to inspect.

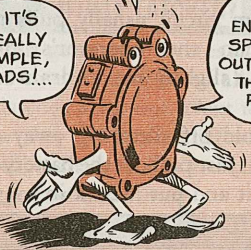
So, some mechanics inspect the fuel pumps. This is wrong! The right pump is described in paras 1-58 thru 1-63, and shown as item 3, fig 5-41 of TM 55-2840-229-24, on T 53 engines.

Please pass on the word.

SP6 James G. Neal  
Ft. Meade, MD



IT'S REALLY SIMPLE, LADS!... THE T53 ENGINE TM SPELLS IT OUT-- CHECK THE OIL PUMP!



(Ed Note—Thanks for the careful eye!)



...FOR YOU!

# ON YOUR SB-22 A LITTLE PM GOES OVER BIG

KEEPING YOUR SB-22 SWITCHBOARD IN TOP SHAPE'S ONE OF THE EASIEST THINGS YOU CAN DO.

ALL IT TAKES IS CONCERN AND PM CARE...

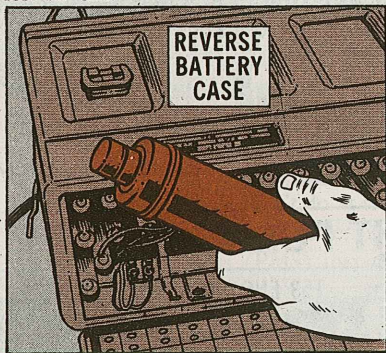
HERE ARE SOME PM GOODIES FOR YOU...

COULD YOU LOOK OVER MY BATTERIES, MACON?

MACON, WILL YOU DEMONSTRATE EXACTLY HOW TO "SQUEEZE TO SNUG"?

OH, SPARKS, SOMETHING'S HAPPENED TO MY LINE WIRE.

**BATTERY CARE**—Before you throw away those BA-30 batteries 'cause the red light dims and the audio weakens, reverse the battery case. Those batteries may have a lot of life left in 'em.



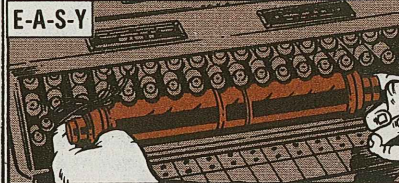
Two batteries are all it takes to give you the 3 volts needed to operate the night alarm and light switch. The other 2 generate a similar voltage to power the operator's telephone.

The power drain is different since the alarm circuit usually pulls more juice than the operator's circuit. Result—a slightly uneven drain on the batteries.

So, hold off throwing away all 4 batteries. Just pull out the battery case, reverse it and put it back in.

**NO ROUGH STUFF**—And, no rough handling when you're replacing batteries or you'll wind up with bent or broken springs and contacts. A simple battery-changing job can turn into a big maintenance one.

To keep your contacts and springs in good shape, do like it says in TM 11-5805-262-12 (Dec 60) when you have to change batteries—

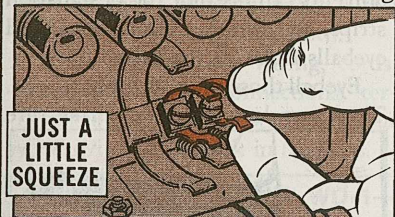


Put your index fingers on the battery case and caps.

Pull the case out.

After replacing the batteries, put the case on the contacts and press it into the spring contacts.

**SQUEEZE TO SNUG**—While you have the rear cover open and you're making the battery case switch, make sure the case terminals are snug



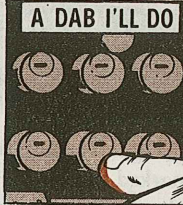
in the contact springs. Just a little pressure is all that's needed. To give 'em good contact gently squeeze the springs.

**HEY, LOOK 'EM OVER!**—If you have not looked at your batteries lately, do so. That's because the batteries keep working even when your switchboard is not. They can start leaking at any time so look 'em over often.

When you know you're not going to be using the switchboard (and any other communications/electronics equipment that uses dry batteries, for that matter) take out the batteries.

Most of the damage from battery leakage comes from leaving batteries in gear when it's not being used.

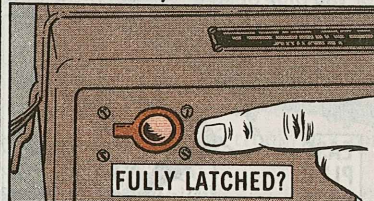
**BEAT THE BIND**—Sometimes the binding posts bind and will not grab the line wire. When this happens, put a dab of silicone grease



NSN 9150-00-257-5358, 8 oz tube, in the line wire holes, or in the hollow just under the binding post screw.

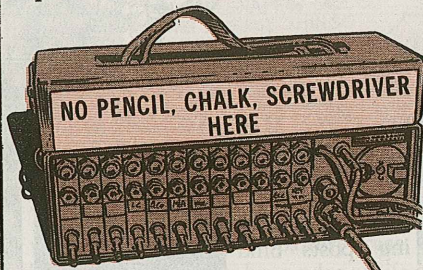
That'll keep the post mechanism from sticking so you can complete the line-wire insertion.

**LATCH BOTCHER**—Take a second after you close the rear cover of your SB-22 to make sure the recessed latches are fully latched.



If dirt gets into the recessed slots, or if the cover is not closed all the way, the latches stick out. Next thing you know they get broken off when your switchboard is laid in a truck or gets snagged on something.

**DOODLING, DIDDLING TABOO**—Doodling on and diddling with your switchboard can make a maintenance mess out of it. The sad part is it never has to happen.



That traffic diagram board is marked so you can tell at a glance just what lines go where. But, when it's used for a blackboard with a pencil, chalk—or worse . . . a screwdriver—that's damaging doodling.

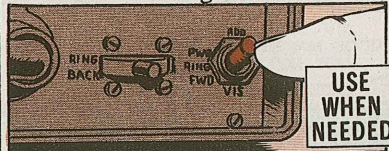
Then, there's the operator with time to kill. So, the plugs are pulled out, cords are twisted into all shapes, or tied into knots for practice. This may be great for passing time, but it'll wear out the wiring needlessly.

Another time passer that's no good for the plug or signal is when the plug



is pulled out and let fly back in place. The plug takes a beating as does the signal cover that happens to be in the way—and, that's damaging electrical diddling.

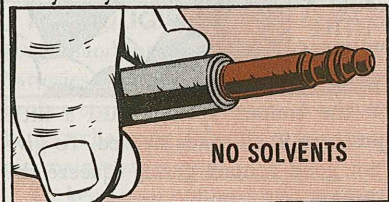
**SWITCH PITCH**—Think twice before playing with your switchboard switches. Switches get a lot of use and



they can take it. But, why give 'em abuse?

**CLEAN SCENE**—Cleaning time for your SB-22? Fine! Use only a water-dampened cloth to do the job. Solvents can discolor the designation strips, and rub the luminous-painted eyeballs right off the balls.

Eyeball those plugs at the brass end. They may look clean but make sure



they are clean. Rub a plug with a piece of treated cotton polishing cloth NSN 7920-00-985-6849 to get rid of the dirt. A clean plug will get a better signal for you.

**TWISTER TALE**—Tug or twist on your SB-22 cord or cable and you'll tear out the wiring. With the U-161 connector on the H-144 headset-microphone, too much twisting'll break the spring sheath. Then, the cord protection is gone.

Always use the connector or jack sleeve to disconnect. This'll take the strain off the cord.

YOUR SB-22 MUST ALWAYS BE KEPT DRY...

HERE'S HOW...

... AND REMEMBER NO DOODLING!

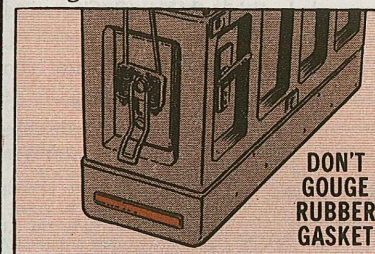
**MOISTURE IS A MESSER**—

Heavy dew, rain and other moisture can be very unfriendly to your SB-22. They can put your gear down and out. To beat these switchboard knockers, give 'em the ol' knockout punch with a swipe of a clean, lint-free cloth.

Wipe the exposed wiring, cords, plugs, line packs, connections, terminals and binding posts. This'll put your switchboard back in business.

**TIP FOR TYING IN WD-1**—

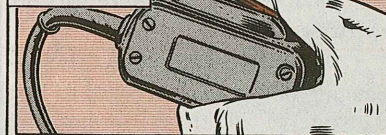
When you're tying WD-1 field wire into your SB-22, make a small loop at the end of the wire or even double the wire before putting it through the thick gasket on the side.



That gasket's tough, but it's not tough enough to take the gouging you give with the blade of a screwdriver. All you have to do is chip off a few chunks of rubber and all kinds of junk can get inside the switchboard.

**LIFE-SAVER**—When there's a no-talking time, turn the push-to-talk switchboard powered and on, you could end up with a knocked-out

**NOT IN USE? SWITCH OFF.**



transmitter carbon element. The ON position also eats up those BA-30 batteries.

**CURE THE SPLITS**—At times, that rubber protector on your switchboard's electrical cord assembly

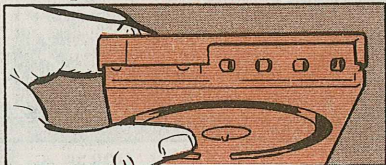


will do the splits, especially after a lot of use. This does not do your TA-222 line jack or TA-326 trunk jack cord assembly any good.

To stop the splitting, cut around the cord with a single-edged razor blade or a sharp knife. Trim off the split portion of the sleeve. Then, taper the edge.

Take care to avoid cutting the cord . . . or whittling your fingers.

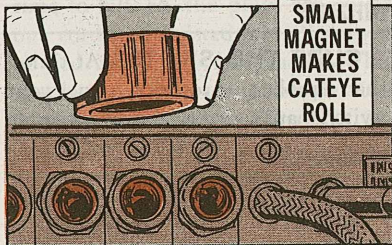
**IF AT FIRST . . .**—Use care when you push a TA-222 line pack or TA-221 operator's pack in place. Be



careless and you'll crunch one or more of the 8 plastic female receptacles for the TA-222 or 20 plastic receptacles for the TA-221.

To keep the pack and you out of a bind, line up the pack and push it in straight. If you feel resistance, back off and try again.

**CATEYE HEADACHE**—Banging on your switchboard to free the cateyes in those hermetically sealed line signals can cause more than a headache. It can break the lens.



**SMALL MAGNET MAKES CATEYE ROLL**

To get the eye to roll right, hold a small magnet above the signal. This makes the eye roll back like it's supposed to do.

**PARTY POOPER**—Never use your switchboard for a picnic table or clothing catch-all. That means keep soda pop, snacks and coffee off it. It's no picnic when spilled food and drink damage your SB.

**HEADSET HANDICAP**—Back off the squeeze when it comes to putting the front cover on your switchboard. You can crunch the



**PUT COVER ON CAREFULLY**

headset or plugs on the telephone circuit panel. This pressure'll bend plugs or break the headset.

Pack your headset in the cover, like in Fig 25, Ch 4 of TM 11-5805-262-12. Then, make sure the cover is lined up on the case before putting pressure on the lock latches.

**SHOCKER KNOCKER**—Before you get comfortable operating your switchboard, make sure your gear is grounded with a MX-148/G ground rod, like it says in Ch 6 to your TM. This may save your SB-22 and you from a wayward electrical shock.



OH, NO! . . . LIZ ISN'T SUFFERING FROM ELECTRICAL SHOCK . . . BEFORE LEAVING, MACON GAVE HER A SPECIAL KISS FOR PERFORMING THE BEST PM IN OUR OUTFIT!

LUCKY STIFF!

FOR MX-6707

# MOISTURE-RIDDING TIPS

MAKE SURE THE ANTI-CAPILLARY GASKET IS SNUG LIKE YOUR TM SAYS . . .

TORQUE THE REINFORCING RING TO 100 IN-LBS!

BIG 10-4, CONNIE!

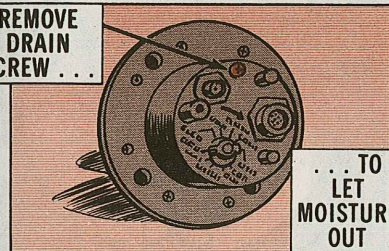


Moisture will mess up your MX-6707 antenna matching unit quicker'n you'd like to think about.

These PM tips will help you knock the water woes in your MX-6707:

Make sure the anticapillary gasket is snug between the matching unit base and lower case like it shows you in Fig 2-3 in Ch 4 to TM 11-5985-262-15 (Mar 69).

**REMOVE DRAIN SCREW . . .**



**. . . TO LET MOISTURE OUT**

Remove the drain screw often to let the wet out. Be sure to replace the screw after the unit is dry.

**KEEP STEEL RING IN PLACE**



Keep the steel reinforcing ring NSN 5985-01-012-5425 in place. Besides knocking away damaging water, the ring'll help equalize the pressure on the plastic bowl around the bolts. This'll keep the bowl from cracking.

HEY, SPARKS!... THERE'S A MECHANICAL ADJUSTMENT ON US MULTIMETERS LOTSA GUYS DON'T KNOW ABOUT!

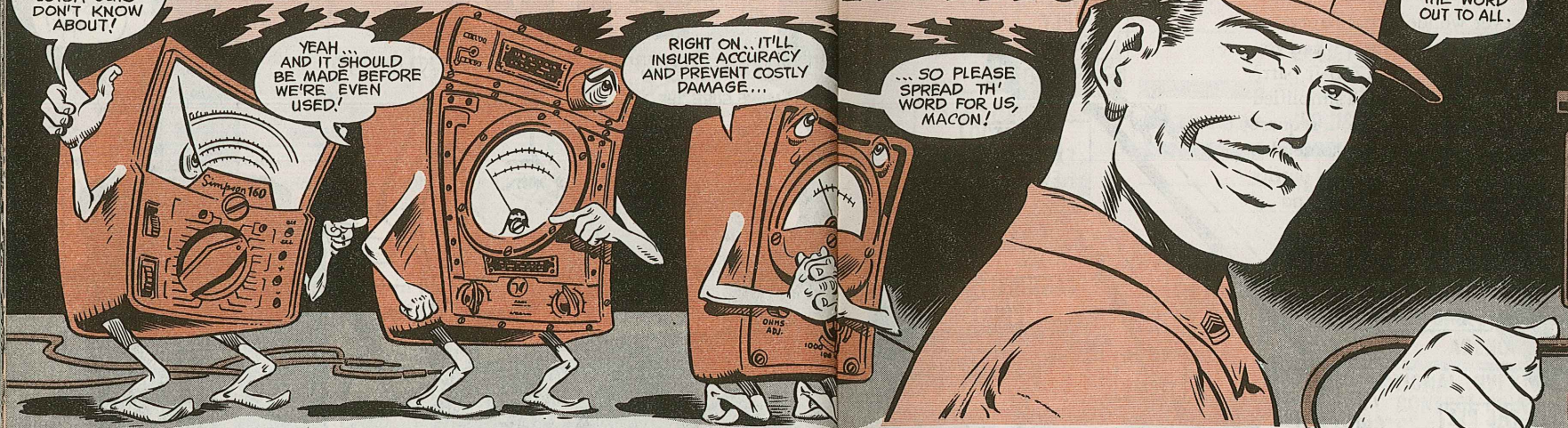
YEAH... AND IT SHOULD BE MADE BEFORE WE'RE EVEN USED!

RIGHT ON... IT'LL INSURE ACCURACY AND PREVENT COSTLY DAMAGE...

... SO PLEASE SPREAD TH' WORD FOR US, MACON!

GOT YOU! I'LL GET THE WORD OUT TO ALL.

# MULTIMETER ZEROING



Everybody knows that to zero multimeters like the TS-352B/U, AN/URM-105 and the Simpson 160, you touch the red and black probes together and turn the ohms adjust knob until the needle zeroes. Right?

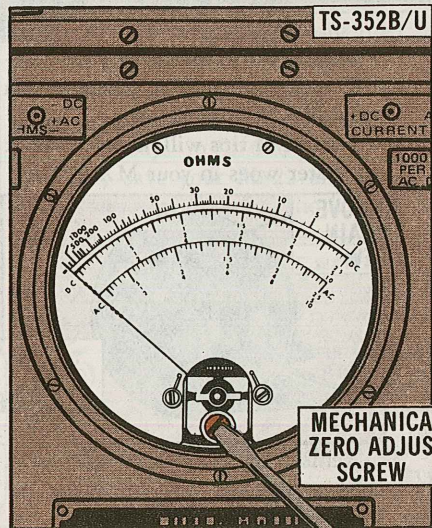
Well, right, but . . .

That's the electrical adjustment, and you do it whenever you want to measure ohms.

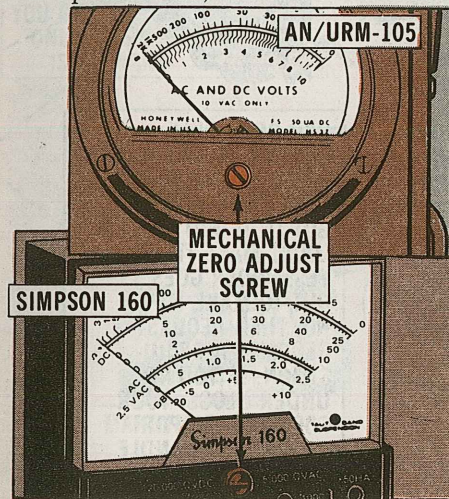
There's a mechanical adjustment that a lot of people don't know about, and it should be done before you even use the meter. It insures accuracy . . . and can prevent unnecessary replacement of parts or components.

The 3 meters above have a mechanical adjustment screw on the meter face or just below it. The pictures show you where it is on each meter.

To mechanically adjust the meter, turn the screw clockwise or counterclockwise until the needle



splits the zeroes on the lefthand side of the scale. The meter switches can be in any position (just don't let the probes touch).



Your best bet is to make the mechanical zero with the meter in the position you intend to use it. If you're going to use it with the meter lying down, then lay it down before you zero the meter. If the meter will be standing up, zero it in that position.

To be sure you're right on target, lightly tap the meter face with your finger after you zero it. If the meter needle moves off zero, adjust it back with the screw.

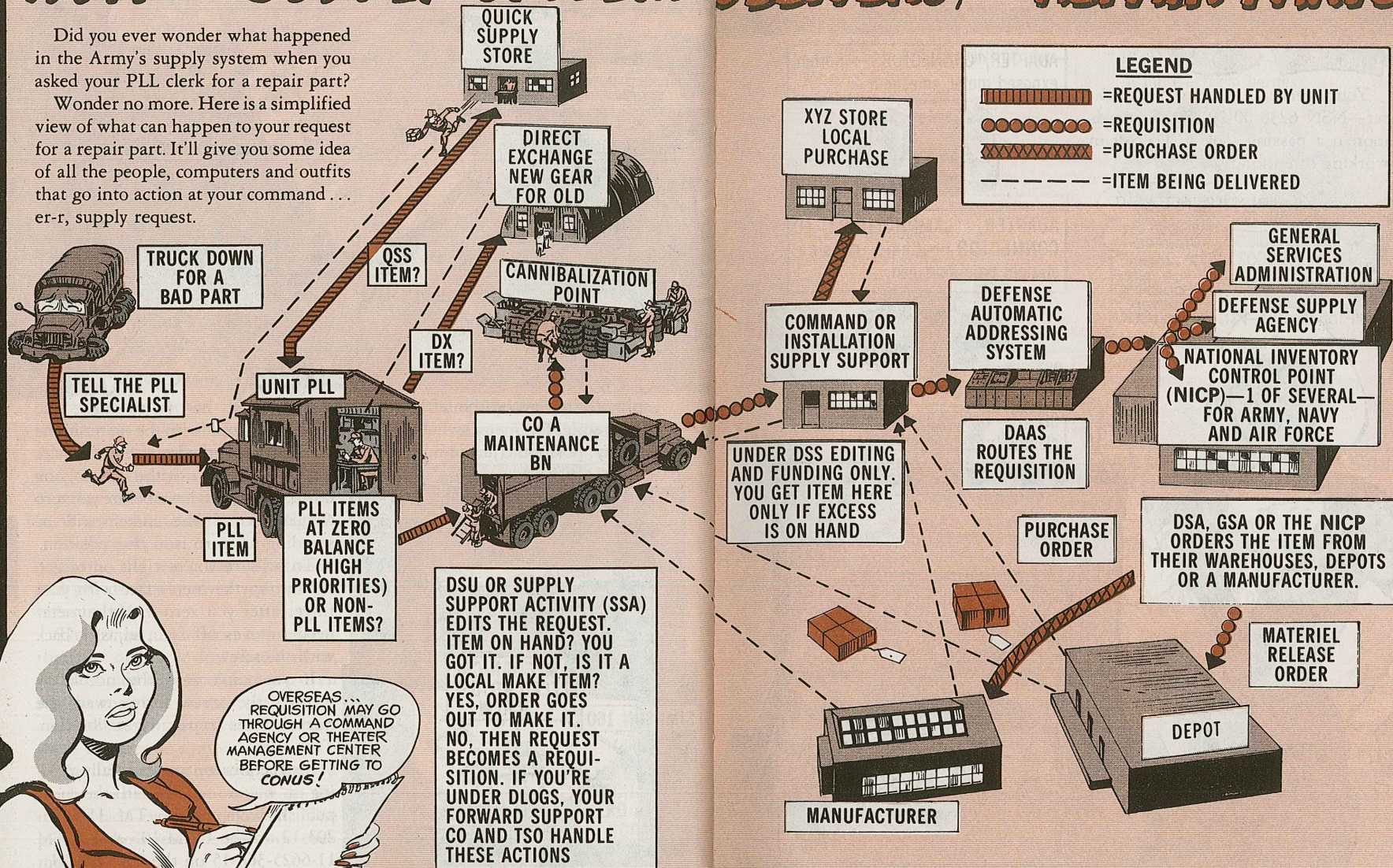
If you can't zero the needle by turning the screw either way, the meter needs repair or calibration. Turn it in.

Instructions on mechanically zeroing a meter will be in the next published changes to TM 11-6625-203-12 on the URM-105 and in TM 11-6625-366-15 on the TS-352B/U.

# HOW the SUPPLY SYSTEM DELIVERS your REPAIR PARTS

Did you ever wonder what happened in the Army's supply system when you asked your PLL clerk for a repair part?

Wonder no more. Here is a simplified view of what can happen to your request for a repair part. It'll give you some idea of all the people, computers and outfits that go into action at your command... er-r, supply request.



# 25-OUTLET LIGHT SET

Your general illumination light set—NSN 6230-00-299-7077—needs more'n a passing look to keep it in working condition.

WHEN YOU'RE GETTING IT ALL TOGETHER--

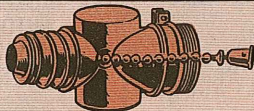
FOR USE OR STORAGE--

LOOK FOR THESE EQUIPMENT DOWN-PUTTERS...

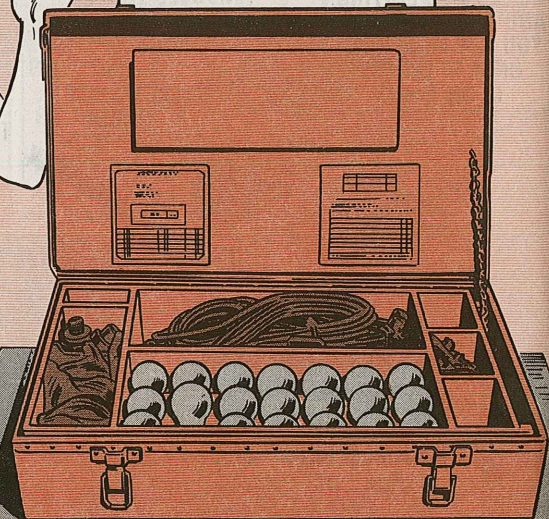
ADAPTER, CONNECTORS — Rotten, exposed metal; smashed.



ADAPTER, LAMPHOLDER TO CONNECTOR — Chain missing, straight type damaged.



CHEST—Busted, leaks; locking clamps broken, missing.



COVER, ELECTRICAL CONNECTOR—Missing, rotten.



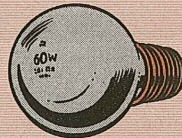
DIMMER, LAMP—Chain missing; threads damaged.



LAMPHOLDER, LOCKNUT—Broken, missing, deteriorating.



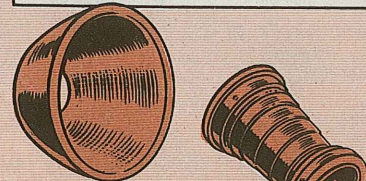
LAMP, INCANDESCENT — Missing; screwbase damaged.



LIGHT EXTENSION — Threads damaged; switch missing; terminals bent, broken, corroded.

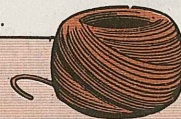


REFLECTOR, LIGHT—Missing; won't fit the electrical harness.



SHIELD, TELESCOPING LAMP— Smashed, missing.

TWINE, COTTON—(Used to keep track of electrical connector cover) missing.



WHEN ADDING OR REMOVING BULB, NEVER HOLD SWITCH LIKE THIS . . .



ALWAYS HOLD RECEPTACLE LIKE THIS . . .

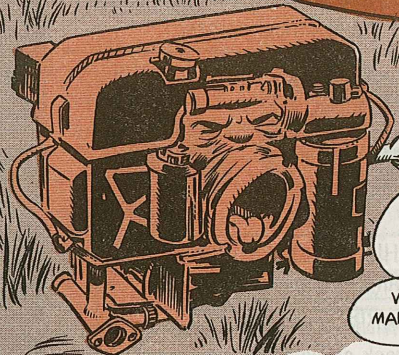


When you have the set operating, eyeball the items each week. Clean the lamps, reflectors, terminals and connectors at least monthly.

You can see the set's parts listed in SC 6230-97-CL-E01 (Jan 75).

10-HP MIL STANDARD  
ENGINE ...

# PAN PM



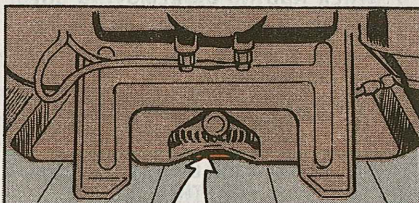
MAKE SURE  
MY DEFLECTOR  
PLATE'S DRAIN  
HOLE ISN'T  
CLOGGED UP!

WHO NEEDS RUSTED  
MANIFOLD ASSEMBLIES?



Say the 10-HP Military Standard engine on your 5-KW GED generator set's getting noisier and burning more fuel?

Take a look at the manifold assemblies—NSN 2805-00-893-9843—and the crossover pipes—NSN 2990-00-570-2935. Could be they've rusted out



CHECK DEFLECTOR PLATE



KEEP MANIFOLD  
ASSEMBLY DRY

because you let water collect in the shallow pan under the engine.

There's a 3/4-in drain hole in the center of this deflector plate. If it's clogged up, water from rain—or a hosing down—fills the pan. Even the corrosion resistant steel exhaust pipe will get gnawed thru with rust if it stays waterbound very long.

Be sure the drain hole is clear. It'll help if you run the engine 3 to 4 minutes after hosing down the set. This'll dry the pipes 'n' pan.

You can reduce the noise level, downtime, parts replacement and fuel consumption if you keep the pan, manifold and exhaust pipes dry.

COMMERCIAL CONSTRUCTION EQUIPMENT ...

C'MON  
FELLAS!



LET'S DO TH'  
TWIST-- 45°  
THAT IS!

## TAIL PIPE TWIST

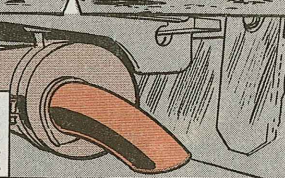


Exhaust air from your 25-ton hydraulic crane's down-pointed muffler pipe kicks up a heap of metal-eating dust. It can also stop your engine with back pressure buildup if you're working in soft ground.

Your machine's exposed working parts take a fearsome beating and you take extra PM time for the cleanup chores.

If your crane's exhaust pipe points downward, fix it like so: Loosen the

TURN 45°  
COUNTER-  
CLOCKWISE



clamp on the tail pipe and turn the pipe backward about 45 degrees from the vertical.

This fix cuts down the dust and stops back pressure buildup from exhaust air.

J.I. CASE LOADER ...

## THROTTLE CONTROL CABLE CAPER

Dear Half-Mast,  
We have 5 J.I. Case MW24B loaders, and 5 MW24 loaders. We never seem to get the right throttle control cable with NSN 2990-00-764-6893, or any of a bunch of part numbers the microfiche crosses to that NSN. P/N 33C from TM 5-3805-251-20P (Jul 74) gets the wrong item, too. Help!!!

SFC B.R.C.

Dear Sergeant B.R.C.,  
You betcha. You can get stung by that MW24 versus MW24B—the "B" makes a difference.

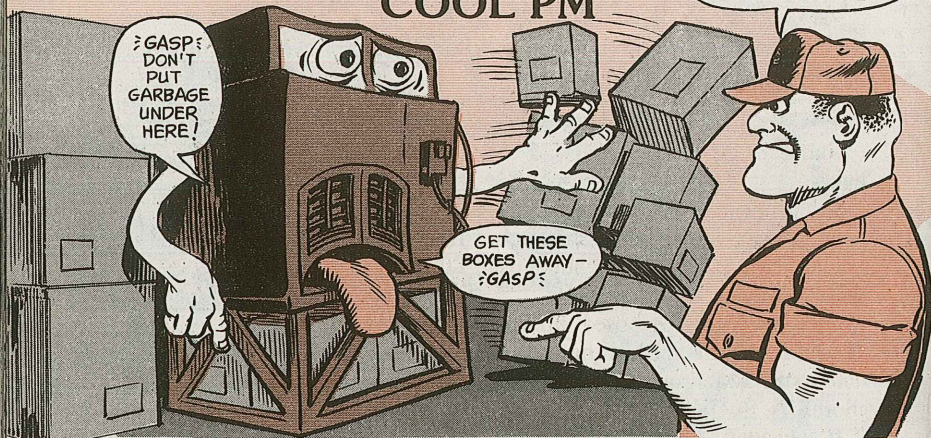
Your MW24 takes a 94-in cable P/N L-14237 (10988). It does not have an NSN.

Your MW24B takes a 96-in cable, P/N D32377-3-0096 (41625). It also cross-references to P/N L-51686 (10988).

THE ILLUSTRATION ON PAGE  
104 OF TM 5-3805-251-20P  
IS GOOFED UP.

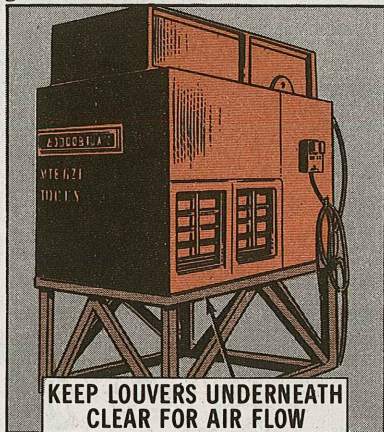


## COOL PM



Getting your Model A-60 air conditioner ready for maintenance-free operation calls for special attention to TM poop.

For instance, para 2-3a, TM 5-4120-204-15 (Mar 71), says the unit has to be level—and at least 6 inches off the ground, hardstand or floor.



**KEEP LOUVERS UNDERNEATH CLEAR FOR AIR FLOW**

Here's why: You gotta have enough space under the unit to keep air

flowing freely thru the 2 sets of condenser intake louvers at the bottom of the unit.

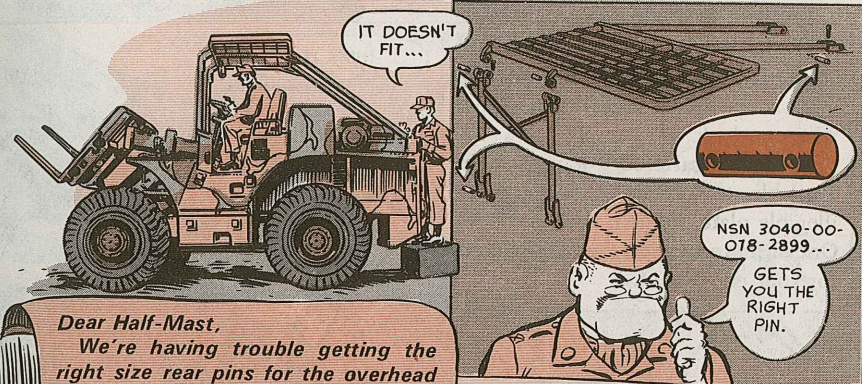
Outside air is drawn in thru these louvers—and the ones on the side—to cool the condenser coil.

Keep these bottom louvers in tip-top shape. Be sure you can open 'em free 'n' easy with your hand. When you let go, be sure they drop and close completely by their own weight.

If the unit is not high enough off the ground—and these louvers don't work—you're in for a heap o'heat trouble.

Like maybe the discharge (head) pressure rises and trips the compressor high pressure safety switch . . . the unit stops cooling . . . even tho the fan keeps running. Things could really heat up in a hurry! You'll wind up with maintenance downtime you could do without, and the equipment in the van or shelter is without cool, filtered and dehumidified air.

## NSN FOR BIGGER PIN



Dear Half-Mast,  
We're having trouble getting the right size rear pins for the overhead guard on our 6,000-lb RT forklifts. The ones we order—NSN 5315-00-763-0125—item 2: fig 5, page 2, TM 10-3930-242-20P/2 (May 74)—seem too short and too small.

Can you help?

MSG W. L. S.

Dear Sergeant W.L.S.,  
Sure thing!

You're getting the wrong item for a fact. Use NSN 3040-00-078-2899 for a longer, larger pin. Action will be taken to put the right NSN in the manual.

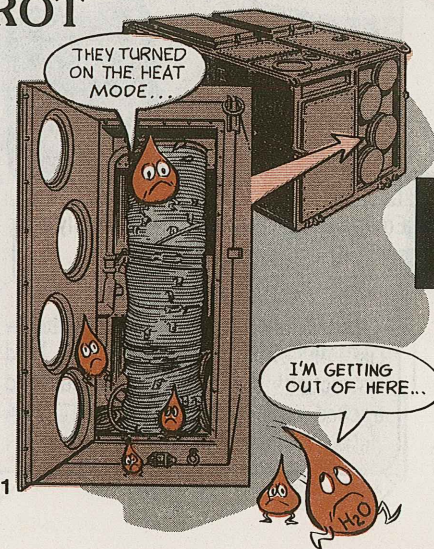
## STOP ROT

Here's a PM tip that'll save you some labor and parts on your MUST turbine engine power plant.

When you get ready to shut down the equipment, let 'er run on the heat mode until the air conditioning outlet compartment is dry, dry, dry!

Getting rid of all the moisture in this storage area will stop air duct rot . . . mildew . . . stale air buildup . . . coupling and strap corrosion.

This PM poop is being added to para 2-15, Preparation for Stopping, in a change to TM 5-6115-586-12 (Jun 72).





## GETTING 'EM

Data plates, decals, ID plates, labels and marking instructions can be elusive creatures unless you know where to look.

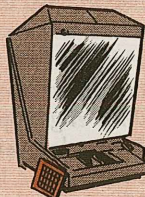
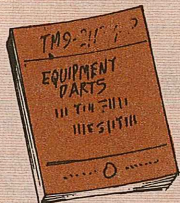
Several scattered sources are available to replace a missing or illegible plate, marker, label or decal. One or more should list what you need for your equipment.

I THINK IT IS...

IT'S...

ISN'T IT?

### SOURCES



Equipment parts (-P) TM's—Normally list some ID and data plates.

Supply Catalog, C 2590-IL (microfiche)—List of blank, designation, ID and instruction plates for wheeled and tracked vehicles.

Supply Catalog, C 6700/9500-IL—Has decals, labels (paper and plastic), plastic ID markers, plastic pressure-sensitive markers and decal repair tape, Class 7690 (medical items only).

Supply Catalog, C 7510/30-IL (microfiche)—Lists marking stencils in Class 7520.

## IDENTIFIED

IT LOOKS LIKE...

MAYBE IT'S...

Supply Catalog, C 9900-IL (microfiche)—Lists plates, alphabetically and by NSN in Class 9905, ID Plates, Signs, Advertising Displays.

DA Pamphlet 310-2—DA labels and DD Forms.

General Services Administration (GSA) catalog—lists stencils, decals, blank plates in classes 7520, 7690 and 9905.

If none of these sources lists the marker, plate or decal you need, have your support make one.

Send in an exception-data request, giving all the info you can. List the equipment (type, manufacturer, code and serial number), size of plate, material of plate, wording and any other info you can give.

Stencils in your No. 1 and 2 Common tool sets will fill the bill for many hand-painted signs and markers.

Most operator's manuals tell where to place plates, markers, decals and labels.

### PLACEMENT AND REQUIREMENTS



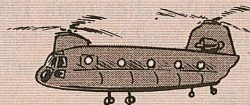
AR 58-1—Administrative Use Vehicles (Chap 8 on ID and Marking.)

AR 385-30—Safety Color Code Markings and Signs.



AR 700-84—Appendix A, Marking of Selected Clothing and Equip.

AR 750-58—Painting, Camouflage Painting, and Marking of Army Materiel.





- TB 43-0116—Identification of Radioactive Items.
- TB 43-0118—Painting, Preserving ECOM Equip.
- TB 43-0122—Safe Handling, Identification of ECOM managed Radioactive items.
- TB 43-0144—Painting of Vessels.
- TB 43-0166—Color, Marking, Camouflage Pattern Painting of Improved HAWK Ground Support Equip.
- TB 43-0209—Color, Marking and Camouflage Painting of Military Vehicles, Construction Equip, and Materials Handling Equip.
- TB 43-0147—Camouflage Patterns, Color and Marking on TROSCOM Equip.
- TB 9-1425-380-14-1—Color, Marking, Camouflage Pattern Painting Pershing Missile and Ground Support Equip.
- TB 746-93-2—Painting, Marking Army Aircraft.
- TB 746-95-1—Color, Marking, and Camouflage Pattern Painting For Armament Command Equipment.
- TM 5-618—Paints and Protective Coatings (Para 11.1.5, Stenciling.)
- TM 10-1101—Petroleum Handling Equip and Operation (para 133, Identification of Facilities and Equip.)
- TM 43-0139—Painting Instructions for Field Use.
- TM 55-1500-204-25/1—General Aircraft Maint. Manual (Table 22 lists plastic for designation plates.)
- SB 11-631—Identification Plates, Name Plates for Commo Equip

(depots make commo equip plates not in the supply system.)

Army pubs can be ordered from AG Pubs Centers in Baltimore and St. Louis on DA Form 17.

- MIL-STD-101B—Color Code for Pipelines and Compressed-Gas Cylinders.
- MIL-STD-129F—Marking for Storage and Equip.
- MIL-STD-130D—Identification Marking of US Military Property.
- MIL-STD-161E—Identification Methods for Bulk Petroleum Products Systems.
- MIL-STD-290C—Packaging, Packing and Marking of Petroleum and Related Products.
- MIL-STD-1458—Radioactive Materials: Marking and Labeling.

Order Military Standards on DD Form 1425 from:

US Naval Publications and Forms Center  
5801 Tabor Ave.  
Philadelphia, PA 19120



\*\*\*\*\*  
\* **IT** \*  
\* **SHOULDN'T** \*  
\* **HAPPEN . . .** \*  
\*\*\*\*\*

SGT D. E. F. unhooked his truck's air pressure warning buzzer. He found out—the hard way—that his brake air-hydraulic system wasn't working. He may live.



### New Words for TM 38-750

Get out a pen or pencil and mark up your TM 38-750. A new DA message, DALO-SMM-F 091900Z Feb 77, came out with changes.

In paragraphs 4-6b(3) (a), 4-6d(1) and 4-6d(2) change the address to Commander, Watervliet Arsenal, ATTN: SARWV-QAR, Watervliet, NY 12189.

Take out the words "See Appendix B for address" in paragraphs 4-6d(1) and 4-6d(2).

Change paragraph 4-6c(2) (d) so that starting with the 4th sentence, it reads: When cannon tubes are condemned based on metal fatigue, column d will be divided into THREE (3) columns. In the left column enter accumulative rounds

fired, zones 1-6 (zones 1-2 for 175-mm gun). IN THE MIDDLE COLUMN ENTER ACCUMULATIVE ROUNDS FIRED, ZONES 7-8. In the right column enter accumulative rounds fired, zone NINE (9) (zone 3 for 175-mm gun).

Add the M110A1 Howitzer to Appendix C, page C-3 under ECC GA and Howitzer, heavy SP full tracked 8", M110. Put an X under the DA Forms 2406/2715 and 2408-9. Use Data columns for that item.

On page E-17 of Appendix E, add M110A1 under the M110. Put an X in the columns for the logbook binder, DA Forms 2408, 2408-1, 2408-4, 2408-5, 2408-9, 2408-10 and 2408-14.

### New Reportable Items

TAMMS clerks and materiel readiness people, grab a pencil. New DA Msg DALO-SMM-F 061530Z Dec 76 added or changed these vehicle entries for Appendix C of TM 38-750 for DA Form 2406/2715 and DA 2408-9 usage reporting purposes:

ECC LIN	NOMENCLATURE	MODEL	DA FORM 2406/2715	2408-9
HK	X41615 TRK CGO 8T	M520	X	X
HK	X41653 TRK CGO 8T W/W	M520	X	X
HK	X41633 TRK CGO 8T W/MHC	M877	X	X
HK	X41635 TRK CGO 8T W/W W/MHC	M877	X	X
HK	X58078 TRK TK FUEL SVC 2500 GAL	M559	X	X
HK	X58093 TRK TK FUEL SVC 2500 GAL W/W	M559	X	X
HL	X63436 TRK WRK 10 T	M553	X	X

☆ U.S. GOVERNMENT PRINTING OFFICE: 1977 - 757-002/76

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

# HAPPINESS IS...

A DIESEL ENGINE OR...

A MULTI-FUEL ENGINE

WHAT A PAL!

LUV MY DRIVER!

WIDLED DOWN

# BEFORE

# SHUTDOWN!

MAKE YOUR ENGINE HAPPY TODAY!