

Issue 256

PS

MARCH

1974

# THE PREVENTIVE MAINTENANCE MONTHLY

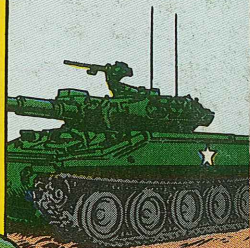
WHADDAYA MEAN  
YA GOT NO TANK  
ROAD WHEELS?  
WHAT KINDA  
OUTFIT ARE  
YOU RUNNING...?

NOBODY'S  
BEEN TURNIN' IN  
REPAIRABLES?

OH...  
I SEE...

MURPHY  
ANDERSON

SMITH





YOU MAY NEED IT...

# WHY TURN IT IN?

OK, so you took that worn out road-wheel off your track. The Man says, "Turn it in!"

You wonder: "It's worn out. Why not junk it?"

There's a lot of life left in many worn or used parts taken off Army gear.

You know about retreading of tires from back home. Engines get overhauled. Motors and generators are rebuilt.

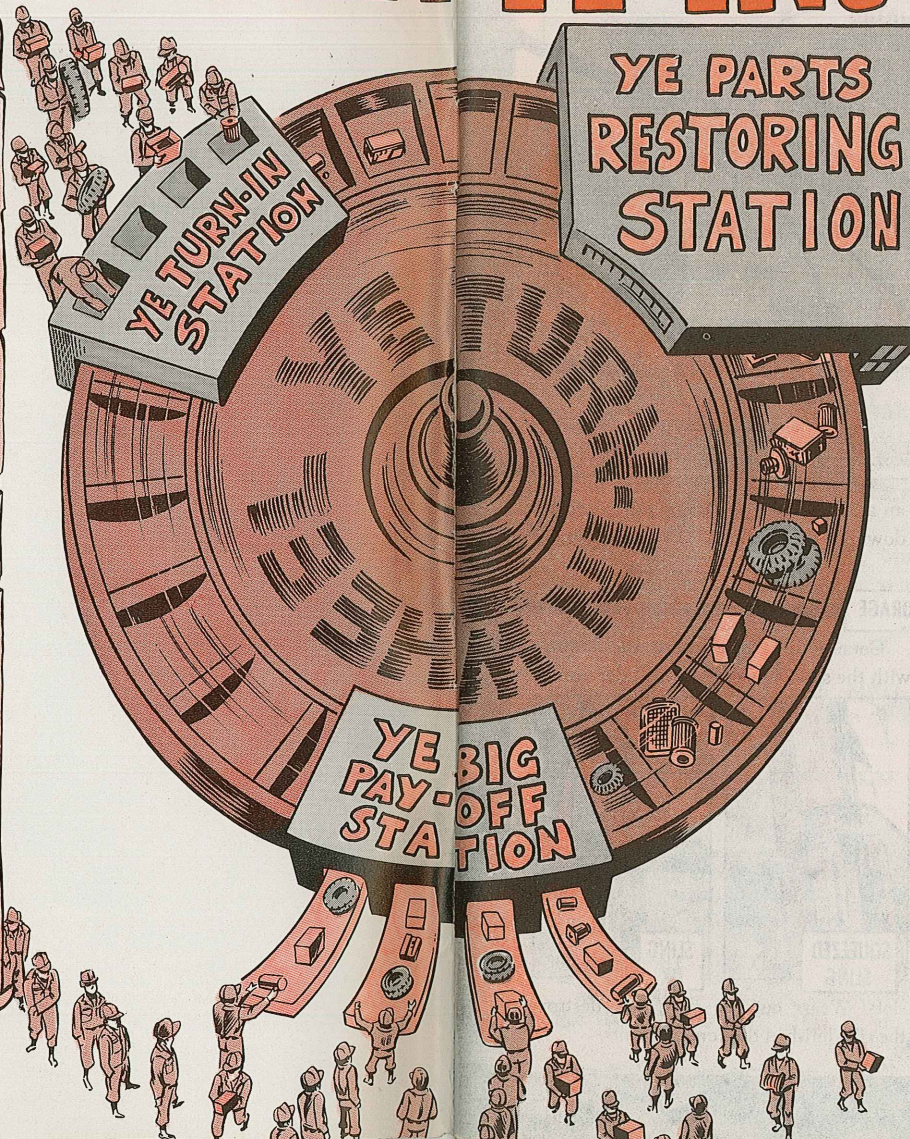
Same for the Army. Many parts and assemblies have plenty life left in them. They just need to go back to where that life can be restored.

Who's responsible to see that these things do go back through maintenance channels for repair or rebuild? You.

So, if you've got an old generator, alternator, track, engine, tire, roadwheel, radio module, transmission, accessory air compressor, starter or whatever lying around, move it. Move it to the next level of support. Now.

Who knows? You could need a good one tomorrow to keep in fighting trim. That rebuilt item made from the "worn out" one you turned in may be the very thing you need.

TRY IT...  
YOU'LL  
LIKE  
IT!



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:

M S G Half-Mast  
PS Magazine  
Lexington, KY  
40507

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# M16A1 PM POINTERS

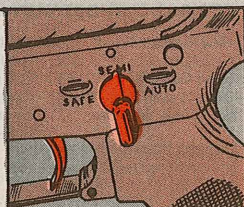


Keeping a Sweet Sixteen mission-ready is an all-hands job—rifleman, armorer, commander. Eyes-open troops who spot and fix downtime trouble areas never worry about their weapons when the chips are down.

## RIFLE STORAGE

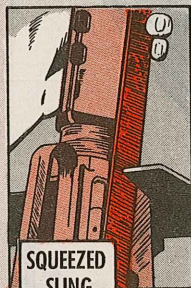
F'rinstance, when you're putting the M16A1 in the arms storage rack, make sure the bolt is closed—trigger pulled—and the selector detent is on SEMI. It's

**WITH SELECTOR DETENT ON SEMI, PULL TRIGGER TO RELEASE TENSION ON HAMMER SPRING**

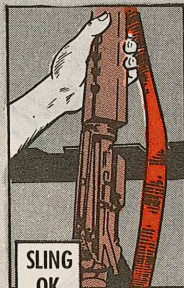


poor PM to store the rifle with tension on the hammer spring. Puts a set in it every time.

'Course, you never store the M16A1 with the sling squeezed in the adapter bar



**SQUEEZED SLING**

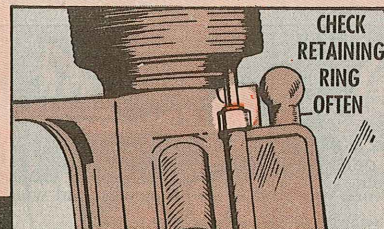


**SLING OK**

slots. Wears out the sling and destroys the rifle finish at the contact points.

## MISSING RING

When you draw your M16A1, you look it over real good, right? Right! That's when you eyeball the weapon for worn, loose, or missing parts.



Like maybe the ejection port cover pin retaining ring is missing.

With the ring gone, vibrations from firing cause the ejector port cover pin to back out. Pretty soon the cover drops off. All kinds of junk then hamper the Sweet Sixteen's bolt carrier group. Working parts are in a world of hurt, and a heap of maintenance is coming up. Turn your rifle over to your armorer if the ring is missing.

## SMALL ARMS RACK-UP TIPS...

# THE NEW 1-2!

## RIFLE M16A1 WITH M203 GRENADE LAUNCHER

Storing M16's in M11 or M12 arms racks? Here're 2 tips to rack up in your memory bank.

### 1. M11 RACK

When storing M16A1's with M203 grenade launchers attached, be sure the M203's trigger guard is unlocked or "open." Saves on bent 'n' broken trigger guards.

### 2. M12 RACK

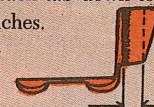
Got selector level lock plates on your M16A1 rifles? You can break off the tabs real easy when racking or unracking.

**M16A1 RIFLE LOCK PLATE, FSN 1005-233-9031**



So, before adding the lock plates, have your armorer file or grind the outside edge of each tab down to a width of 0.24 ± .010 inches.

**FRONT VIEW**



**0.24 ± .010 inch**

**FILE OR GRIND TAB TO THIS WIDTH**

Simple, huh? But even with filed-down lock plate tabs, use plenty of care when you put your rifle in or take it out. One wrong move—and your lock plate's no good any more.



BE YOUR OWN INSPECTOR . . .

# 81-MM MORTAR DELIGHT

WATCH FOR THE  
FAULTS IN **BOLD TYPE**--  
THEY'RE MOST SERIOUS.

When you're after the fox with your 81-MM firepower boss, you want a real tiger of a weapon.

Anything that's unlubed, jammed, broken or missing is bad news, man, and will

turn your mortar into a mouse. And who ever heard of a mouse that roared?

Make this daily inspection for trouble spots. It's a case where readiness is all-important.

Note: This ground bipod mount is a component of the major end item and can't be replaced. If your bipod is non-repairable, the whole mortar assembly gets turned in.

The \$3,100 bipod—FSN 1015-436-4874—adapts the ground-fired mortar to an M125A1 carrier.

MORTAR MOUNT M23A1

**GENERAL**—Rusted, frozen, broken or missing parts; scratched, chipped or blistered paint; needs lube; **damaged or broken threads and bushings.**

**DOVETAIL SIGHT MOUNT**—Bent or broken; burred.

**LEVEL VIAL**—Loose or broken; blurred markings. (Newer bipod mounts are made without level vials.)

**SLIDING TUBE**—Cruddy, cracked, worn, burred or bent.

**CONNECTING ROD**—Bent, broken or missing; missing bolts.

**FEET**—Loose, broken or missing.

**LEGS**—Bent; won't lock or adjust.

**YOKE GROUP**—Damaged or clogged oil cups; burred or cross-threaded screws.

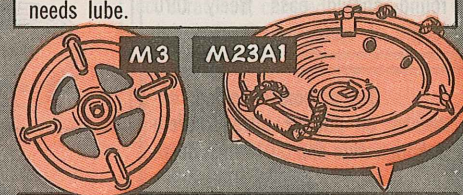
**SHOCK ABSORBER**—Dirty, corroded, gunky or painted; binds; cracked; weak or broken spring; worn or damaged bushings.

**CLEVIS, CLEVIS PIN & CHAIN**—Bent, damaged, broken or missing parts.

**CHAIN** (Tape-wrapped), **SPRING & HOOKS**—Bent, broken or missing.

BASEPLATE M3 or M23A1

**GENERAL**—Rusted, corroded, cracked or deformed; worn, **frozen, broken or missing parts**; broken welds; scratched, chipped or blistered paint; needs lube.



**SOCKET**—Gunky, gritty, painted or burred; frozen stiff.

**ROPES & HANDLES** (M23A1)—Weak, broken or missing.

**INNER & OUTER RINGS** (M23A1)—Frozen, warped, won't fit; bent, broken or missing latches.

**BASEPLATE FEET**—Bent, cracked or broken.

**ELEVATING MECHANISM**—Binds or skips; won't mesh; damaged or clogged oil cups.

**HOUSING**—Gunky, dented, bent or cracked.

**ELEVATOR HANDLE & CRANK**—Bent, damaged, broken or missing parts.

**HOUSING CAP**—Missing.

**TRAVERSING MECHANISM**—Binds or skips; burred, gunky, weak or broken traversing screw spring.

**TRAVERSING HANDLE & CRANK**—Weak or broken traversing handle spring.

**SPINDLE TUBE**—Dented, bent or cracked.

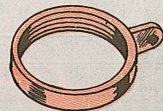


## CANNON ASSEMBLY

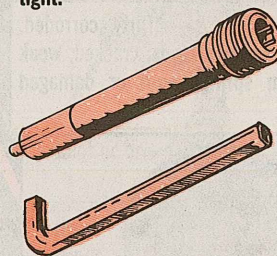
**GENERAL**—Rusted or corroded; bulged or out of round (dummy round should pass freely thru length of tube).

**BORE**—Dirt or powder-fouled; excessive oil puddle; pitted more'n 3/8 inch wide and 0.010 inch deep.

**BARREL RING**—Bent or broken; won't screw smoothly on barrel.



**FIRING PIN** (Remove from base cap with socket head screw key, FSN 5120-240-5274)—Pitted, burred, cracked, deformed or broken; stripped threads; won't seal gas-tight.



**BARREL M29 or M29A1**—Nicked, dented or cracked; worn, burred or stripped threads; needs lube; unlubed or painted threads and bearings; obscured or missing white paint markers 17 inches and 21 inches from barrel end.

**BASE CAP**—Loose, dented or cracked; rough or burred ball projection; stripped threads; leaks gas (look for powder burns around brazing seal and firing pin).

Note: Never mix your basic mortar components with those of another mortar.

For easy identification, color code your cannon, baseplate and mount with short strips of colored tape or small paint patches. (But first be sure all the serial numbers check out with your records.)

## SIGHTUNIT M53 or M34A2

**RUBBER EYESHIELD**—Deteriorated, moldy, cracked, loose or missing.

**OPTICS**—Smeared, scratched or obstructed; broken.

**GENERAL**—Dirty, corroded or rusted; scratched, chipped or blistered paint; wet; missing parts.

**RETICLE ILLUMINATING WINDOW**—Unsealed; cracked or broken; bent, loose or off-center instrument light holder.

**INDEX LINES AND SCALES**—Blurred, gouged or painted; missing.

**LEVEL VIAL COVERS**—Bind; won't snap into detent in both positions.

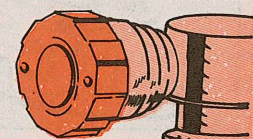


**LEVEL VIALS**—Broken; loose.

**TELESCOPE MOUNT LOCKING LATCH**—Binds; broken.

**DOVETAIL BRACKET**—Nicked, burred, bent or broken; painted.

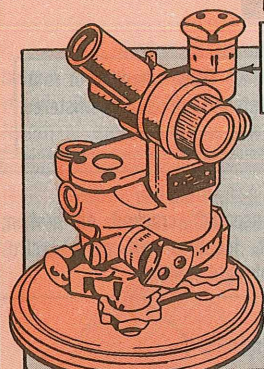
**AZIMUTH THROWOUT MECHANISM (M34A2 only)**—Gunked up; broken; won't mesh.



**ELEVATION AND AZIMUTH KNOBS**—Wobbly or bind; work rough; loose worm mechanism.

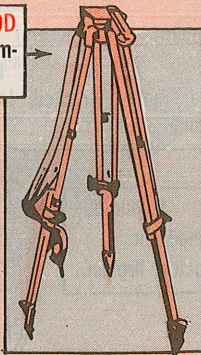


## MORTAR ACCESSORIES



**AIMING CIRCLE M2 AND TRIPOD M24**—Dirty, greasy or gritty; damaged, broken or missing parts.

CHECK 'EM OFTEN.

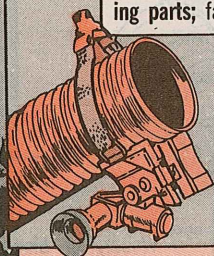


YOU MEAN PADS ARE USED?

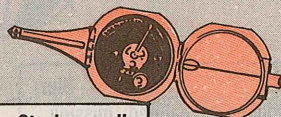


YUP... SURE ARE!

**BORESIGHT M45**—Loose, bent or broken; moldy or torn strap; missing parts; faces nicked or burred.



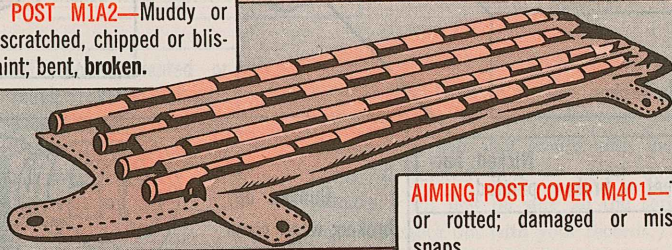
**COMPASS M2**—Stuck needle; scratched, cracked or broken glass; dirty, bent, broken or missing parts.



**INSTRUMENT LIGHT M42 or M53 AND AIMING POST LIGHT M14**—Weak, dead or corroded batteries; dented, corroded, broken or missing parts; frayed, bared or shorted wires; damaged or missing aiming post light filters.

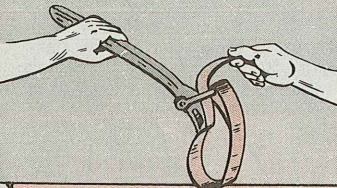


**AIMING POST M1A2**—Muddy or greasy; scratched, chipped or blistered paint; bent, broken.

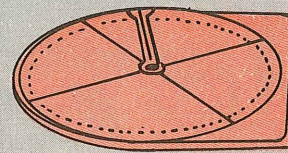


**AIMING POST COVER M401**—Torn or rotted; damaged or missing snaps.

**STRAP PIPE WRENCH**—Torn, rotted or missing strap; broken or missing parts.



**PLOTTING BOARD M16**—Dirty, greasy or smeared; bent, warped, broken or missing parts. (Pivot point needs light lube.)



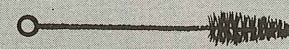
**DUMMY ROUND M68**—Scratched, chipped or blistered paint; bent fins; cracked body.



**CLEANING STAFF M8**—Loose or broken handle; bent or broken tines.



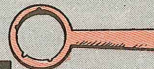
**CLEANING BRUSH M6**—Dirty, bent, worn, broken or missing.



**FUZE SETTERS M14, M25 AND M27, AND FUZE WRENCH M18**—Bent, worn, broken or missing.



M14



M25

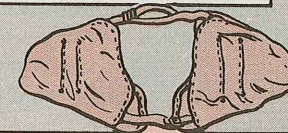


M27



M18

**SHOULDER PAD M3**—Torn, moldy or rotted canvas; broken or missing straps and buckles.



**MUZZLE COVER**—Torn, rotted or missing; missing strap, buckles or snap.



Watch your P's and M's, brother (PM, get it?). If you've done your job right on, that 81-MM is one tough cat.

Remember, an eye and a thumb on your pubs—FM 23-90 (Feb 72), TM 9-3071-1 (Jan 58—an old dude) and TM 9-1015-200-12 (Apr 71)—helps you keep your weapon ready and able.



# REDEYE READOUT

You've been tapped for training in the Redeye Air Defense Guided Missile System. You're doing homework in TM 9-6920-428-12 (Aug 69).

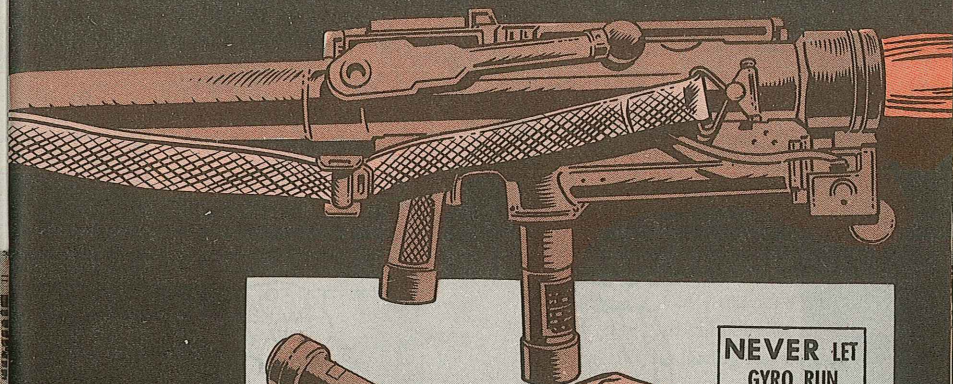
Reading and heeding the fine print can save a bundle of bananas. Like maybe \$1,362. That's the cost of a new infrared seeker head for the M49E3 trainer. Not to mention costly maintenance and training downtime.

F'rinstance, take a good look at the caution note in figure 2-7 and in para 3-4a(3). It says after completing the firing sequence, release the uncaging switch and wait 1½ minutes before moving the trainer.

Moving the trainer. This is a V.I.P.—very important phrase.

HOW YOU MOVE  
THE TRAINER  
IS CRITICAL.

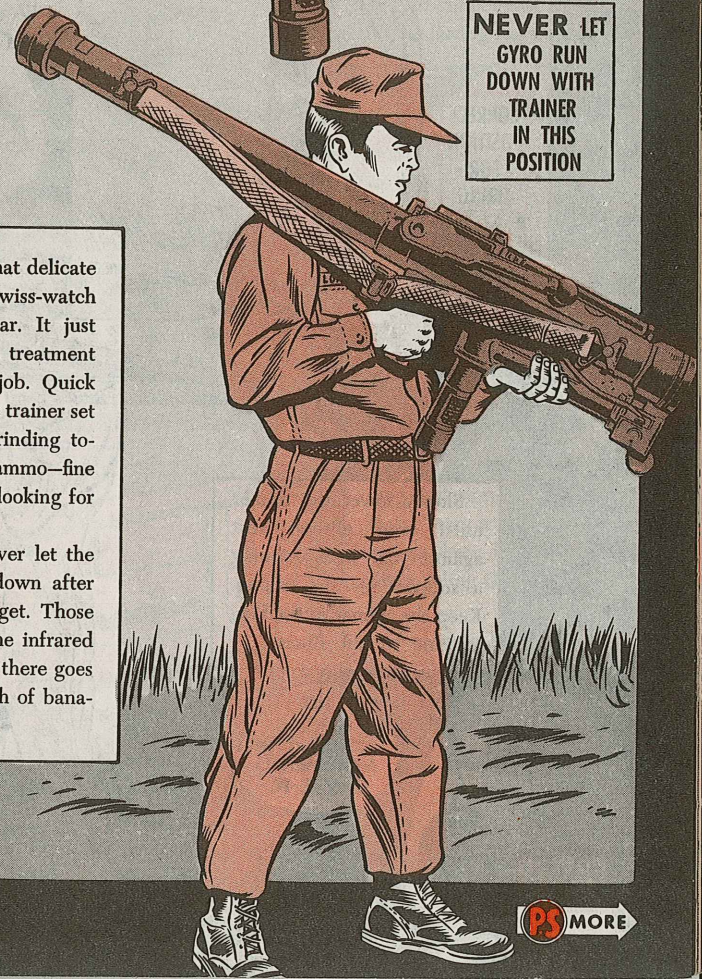
YOU N-E-V-E-R  
MOVE IT WITH A  
RAPID MOTION,  
SPECIALLY WHILE  
THE GYRO'S IN  
MOTION.



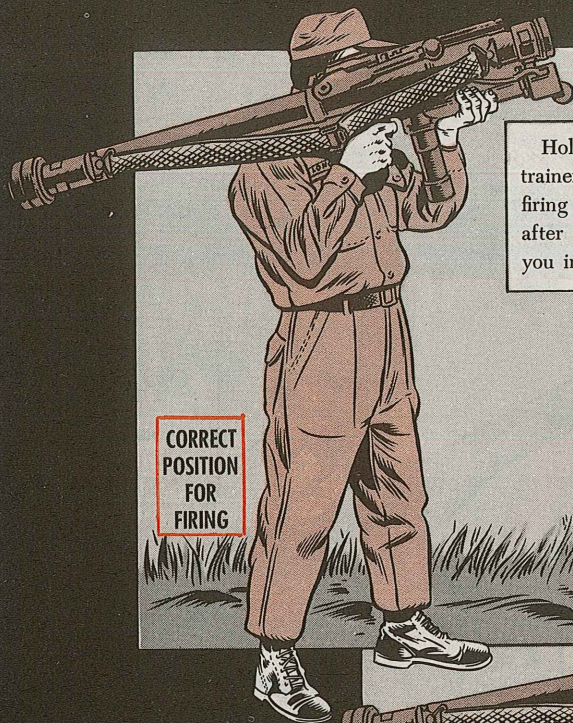
NEVER LET  
GYRO RUN  
DOWN WITH  
TRAINER  
IN THIS  
POSITION

Here's why. That delicate gyro is some Swiss-watch fine piece of gear. It just can't stand harsh treatment and still do its job. Quick movements of the trainer set the gyro parts grinding together and whammo—fine metal slivers are looking for a place to land.

F'rinstance, never let the front end drop down after firing at your target. Those slivers sift into the infrared seeker head—and there goes your \$1,362 bunch of bananas.







Holding this 14-lbs plus trainer in the tracking and firing mode for 1½ minutes after firing sequence puts you in some kind of strain.

SO,  
MAKE  
IT EASY.

**CORRECT  
POSITION  
FOR  
FIRING**

Slowly lower the trainer until your elbows rest against your sides—forming a support for the trainer. Keep the trainer in tracking position at all times.

NO  
QUICK  
HERKY-JERKY  
MOVEMENTS  
E-V-E-R.

**REST  
ELBOWS  
AGAINST  
SIDES  
WHILE  
GYRO  
RUNS  
DOWN**

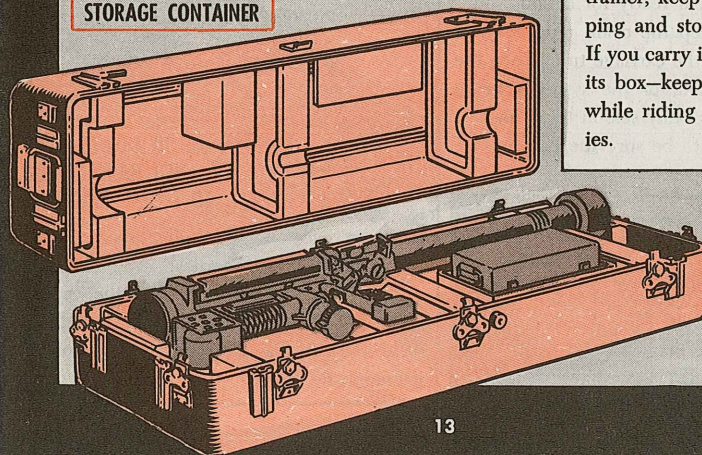


After the gyro winds down, set the trainer down on your foot. Foot! That's right. This cushions the trainer and keeps it out of mud, dirt, sand, and water until you're ready to use it again. Sure, the protective shock ring and rubber disc protects it from jarring stops...

...BUT  
GOOD TRAINER  
PM SAYS TO  
SET IT DOWN  
SLOW AND EASY  
LIKE.

**PROPER  
REST  
POSITION**

**REDEYE SHIPPING AND  
STORAGE CONTAINER**



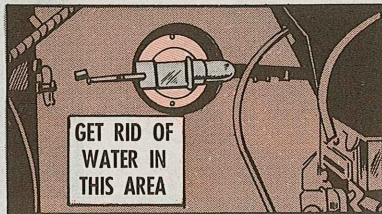
When you transport the trainer, keep it in the shipping and storage container. If you carry it naked—out of its box—keep it in your lap while riding thru the boonies.



# TOWED VULCAN SHOTS

Things like keeping it dry, watching where you put your feet and insuring that moisture seals are in place are common sense PM bits that keep your M167 Vulcan ADA system ready for action.

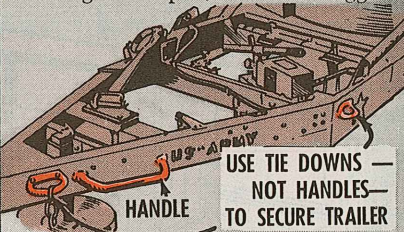
First off, keep the drain plug open in the bottom of the carriage tub. When the weapon's parked, or the system's being washed, or it's rainy season time, make a double check to be sure the bottom carriage drain's open.



Also, if you see water building up, get it out right now . . . with rags, sponges or whatever. It can get high enough to damage the distribution box or even the sight current generator.

## CARRIAGE

When you tie down the carriage for trailering or transport, use those 8 rugged

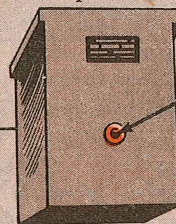


tie-down eyes. Keep chains, rope and such out of the lift handles.

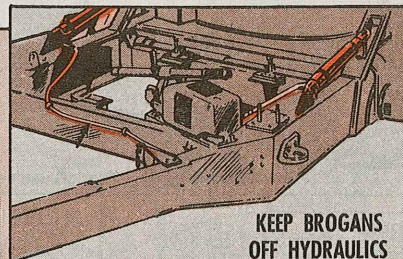
The tie-downs are bolted to the carriage. The handles are held by a light weld and can tear loose during transport if used as tie-downs.

## FIRING INTERRUPTER

Eyeball the O-ring seal on the firing interrupter assembly whenever you use it. If it's dried out, replace it. Otherwise, a



dab of silicone compound, FSN 6850-880-7616, once a month can help stop moisture from seeping into the assembly.



The hydraulics on the towed system are touchy dudes, what with people forgetting to free them before elevating the gun, or dirt and grit getting on the rods.

You, as operator or repairman, can do them a No. 1 favor by not using them as a step . . . like never. Feet off.

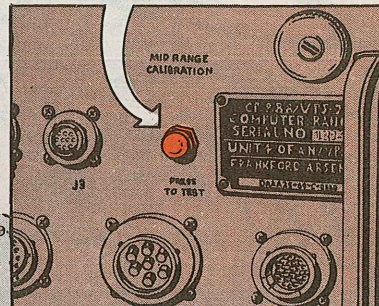




## COMPUTER

Looking for a boot to keep dirt and moisture out of the CP-888 computer press-to-test switch?

NO, ARNOLD...  
THAT'S NOT THE KIND  
OF BOOT WE NEED!

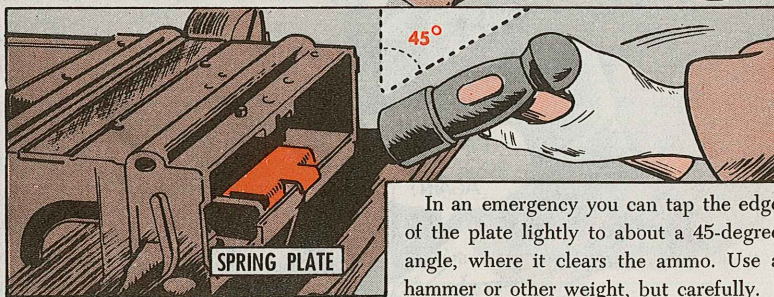


Go after it with FSN 5930-800-5770. The boot listed on page 3-45 of TM 9-2350-300-20P, under FSN 5930-064-2455, won't fit.

## DECLUTCHING FEEDER

SORRY! THIS  
PLATE'S GOTTA BE  
REPLACED!

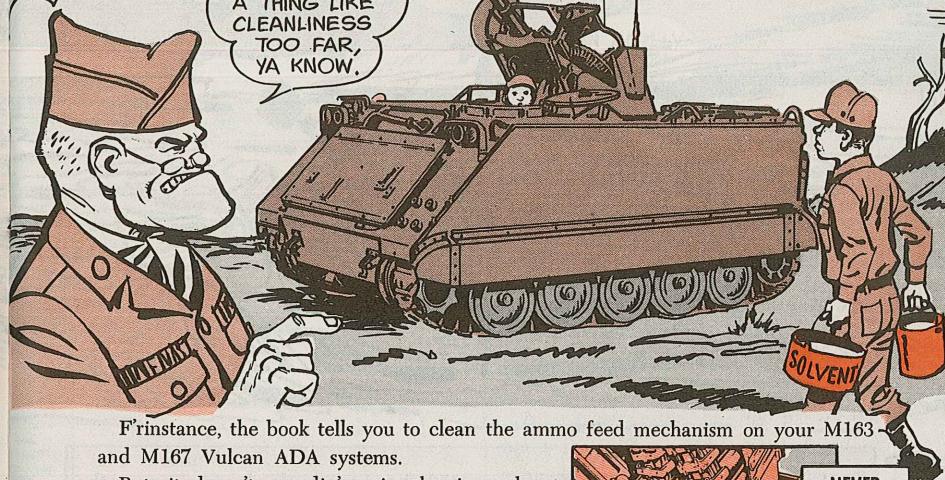
If the spring plate on the declutching feeder is grabbing at expended ammo . . . and maybe jamming the gun . . . replace the plate.



In an emergency you can tap the edge of the plate lightly to about a 45-degree angle, where it clears the ammo. Use a hammer or other weight, but carefully.

## KEEP VULCAN CLEAN, BUT...

YOU CAN CARRY  
A THING LIKE  
CLEANLINESS  
TOO FAR,  
YA KNOW.



For instance, the book tells you to clean the ammo feed mechanism on your M163 and M167 Vulcan ADA systems.

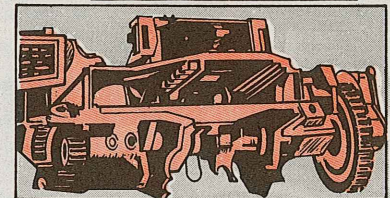
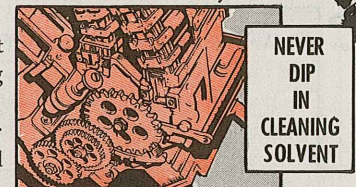
But, it doesn't say dip 'em in cleaning solvent . . . which is how far some Joes go with the cleaning bit.

If you submerge units like the exit and conveyor assemblies in the solvent, you mess up the sealed bearings. The bearings can't be repacked.

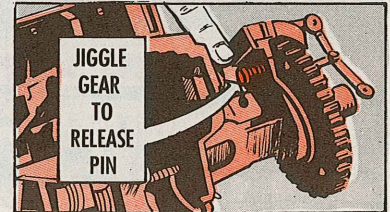
Same goes with the declutching feeder (the packing comes out of the bearings and causes the gun to jam). But, with the feeder, the cleaning solvent also messes up the feeder solenoid.

Which would seem to indicate that if you've just gotta clean a part with solvent, be sure the part doesn't have bearings, electrical items or anything else that might be damaged by the dip.

When you replace the declutching feeder on the gun, jiggle the gear assembly or the barrel to make sure that the timing pins release. If they don't release, the pins will break off when the gun is fired.



DO NOT SUBMERGE FEEDER





## GROUND MOBILITY

GAMA GOAT

DON'T THEY  
MEAN  
WATER  
MOBILITY?  
HEH! HEH!

# Peek for

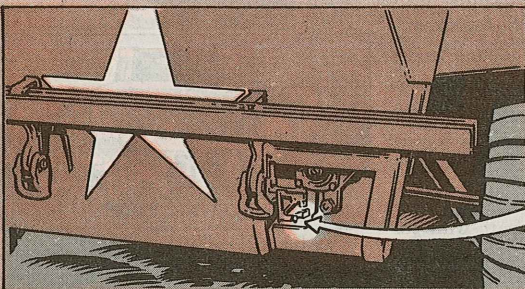
# Leak after Goat Float

DOESN'T THIS  
SWIMMING  
BOTHR YOUR  
STEERING GEAR?

I CAN BARELY  
TELL I'M IN  
THE WATER.

Water in the steering gearboxes of your M561 1 1/4-ton truck, plus freezing weather, means ice—and that's trouble you don't have to put up with.

Water might have seeped into the steering boxes during swimming. Check both front and rear boxes (remembering that water will settle under the oil, since it's heavier).



FRONT  
STEERING BOX  
DRAIN PLUG

If there's water inside, take out the drain plugs, drain, flush and refill with GO lube.

Check the boxes again after any fording or swimming with your Goat. Look for lube leaking from the steering box. This can happen where the output shaft housing screws into the lower gear housing on the front gear box.

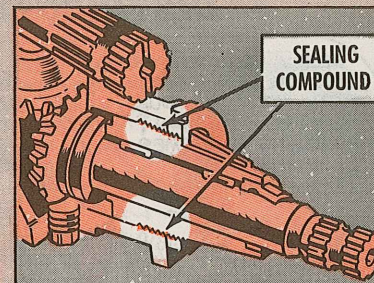


EYEBALL  
LUBE  
LEAKING  
FROM  
THE  
STEERING  
BOXES.

If lube's getting out, water can get in! Got a leaker? Your DS can fix it. Pass the word, in case they haven't heard.

They'll back off the housing locknut with a spanner wrench—holding onto the housing real good with another wrench so it doesn't unscrew, too.

After cleaning the threaded part of the housing, they'll run a thin bead of sealing compound around the threads right where



SEALING  
COMPOUND

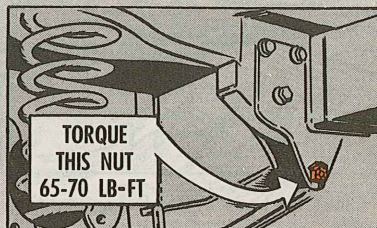
the 2 housings come together. This compound is either FSN 8040-865-8991 (MIL-A-46106) or FSN 8030-252-3391 (MIL-S-45180).

WHEN THE  
WHOLE WORKS  
IS PUT BACK  
TOGETHER, YOUR  
LEAK IS GONE!



# A REBOLTING IDEA

A new item to add to your M151A2 1/4-ton truck's 12,000 miles or 12 months Preventive Maintenance Service checklist is making sure the rear suspension arm support bolts are torqued to 65-70 lb-ft. (This goes for the M718A1 and M825, too).



These bolts can work loose after the vehicle is in service awhile. You may even find the bolts are loose when a new vehicle is issued to you, so check them in pre-service processing, too.

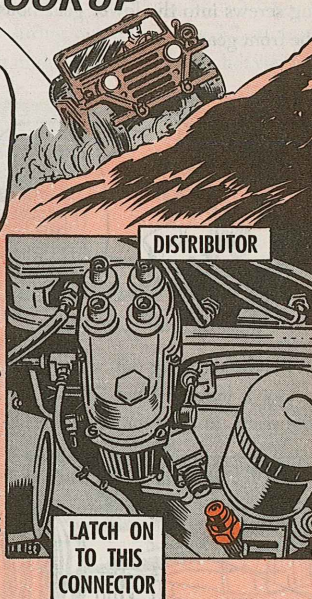
LOOSE BOLTS WILL CAUSE HEAVY WEAR ON THE REAR SUSPENSION HANGERS, BUSHINGS AND THE BOLTS THEMSELVES.

## DISTRIBUTOR HOOKUP

NEED A PRIMARY CABLE CONNECTION FOR THE DISTRIBUTOR ON YOUR M151-SERIES 1/4-TON? HERE 'TIS (IT COMES IN 4 PARTS):

Shell, FSN 5935-686-2610  
Grommet (bushing), FSN 5340-772-2343  
Nut, FSN 5935-333-3088  
Nut, FSN 5975-697-6991

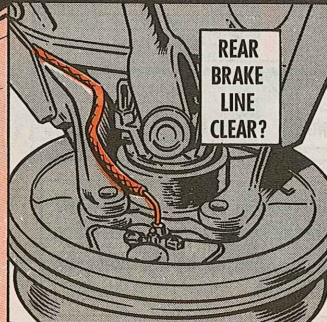
These FSN's aren't in the -20P, but you can see the connector in TM 9-2320-218-20 (Sep 71), Fig 2-146, page 2-126.



## CHECK BRAKE LINES

MAKE SURE THE REAR BRAKE LINES ON YOUR M151 FAMILY OF 1/4-TON TRUCKS AREN'T TOUCHING ANY U-JOINT MOVING PARTS.

LIKE RIGHT NOW, MAN!



Brake line breaks are a real hazard—and some have cropped up on those 1/4-tonners that came out before a clip was put on to keep the brake line out of the way.

Got a close one? Get your mechanic to bend the line away from moving parts. Have your support replace any banged-up line with a 23-in length of bulk steel tubing, FSN 4710-289-8165.

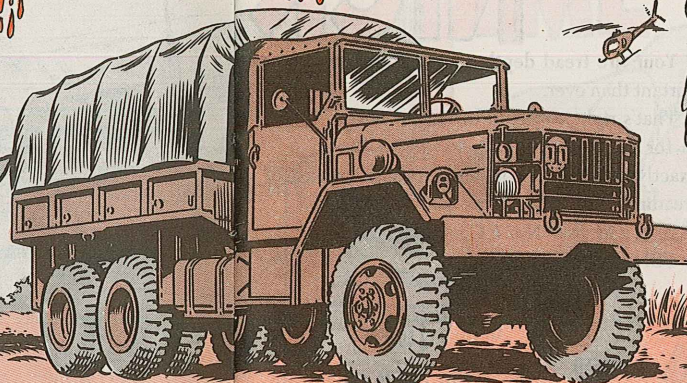
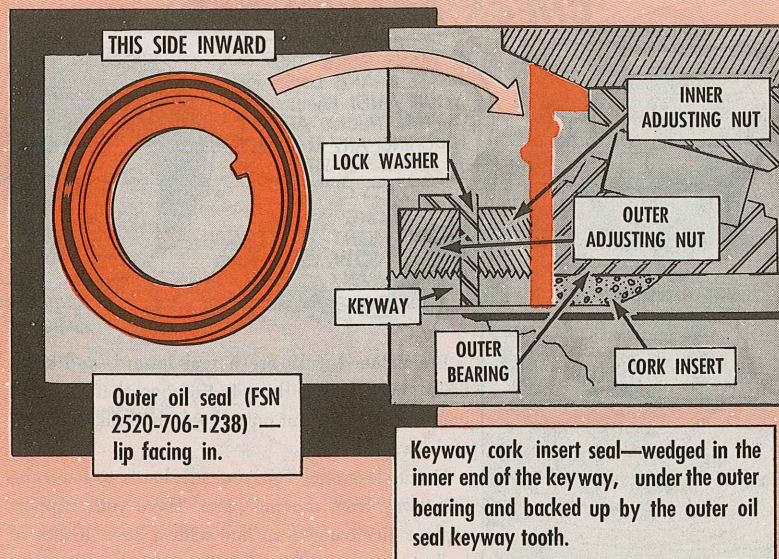


# LEAKING OUTER OIL SEALS

Dear Half-Mast,  
We've been having a problem with gear oil getting into the rear axle hubs and on the rear wheel bearings on our M35A2 2 1/2-ton trucks. We tried new seals, but that didn't stop the leaks. Can you help?  
SP5 S. F.

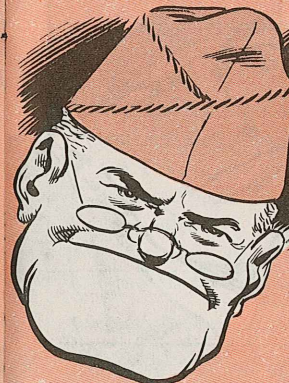
Dear Specialist S. F.,

My best guess is that the rear axle outer oil seal is installed backwards, or the cork insert is missing. The outer seal on TM 209-series 2 1/2-ton trucks should be installed so the lip faces in, like so:

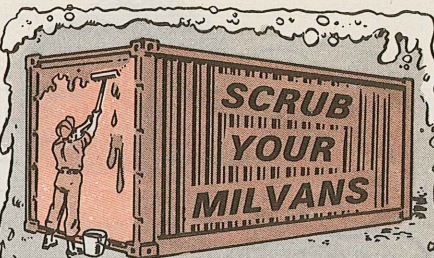


If that 9/32-by-17/32-in hunk of cork is missing, get it in a gasket set with FSN 2520-752-1735, or separately with FSN 5330-712-1244. Or, you could cut one to fit from Cork, Sheet, FSN 5330-350-9099. Bevel one end a little to fit where the inner end of the keyway slopes up.

If the seals are still leaking, check for a plugged axle housing breather. Pressure buildup could be your problem. Breathers should be checked real often. Give the cap a twist to shuck out any dirt. Then tap it a couple of times to make sure the spring-loaded valve inside is working OK.



IF THE  
BREATHER'S  
NO GOOD,  
REPLACE IT!



A lot of guys don't scrub down their MILVANS after sea-going trips. That salt water really eats away the metal.

So make sure you're up on the poop in TM 55-8115-200-24 (Sep 72)—for washing down and maintaining these vans.

If you don't have this TM, order it on DA Form 17 from the St. Louis AG Publications Center.

## WATER TRAILER CLINIC

NEVER  
GIVE UP!  
CHECK  
'EM OVER  
CAREFULLY.



You'd better take another look before you give up on that M149 or M149A1 400-gal water trailer.

Stains or cracks inside? Cracks or blisters on the outside?

No sweat—probably.

There's a rundown on "field repair" in TB 750-981-4 (Oct 73).

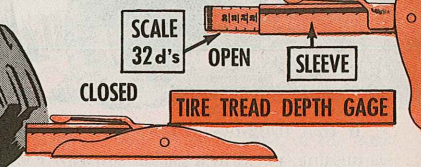


YOUR  
DEPTH GAGE  
CATCHES  
'EM...

# IN THE NICK

Your tire tread depth gage is more important than ever.

That's right. Since all tires must now go in for retreading, it's up to you to know exactly when to report 'em ready for retreading. The gage helps you to do just that. It's in your No. 1 Common Tool Kit as FSN 5210-019-3050.

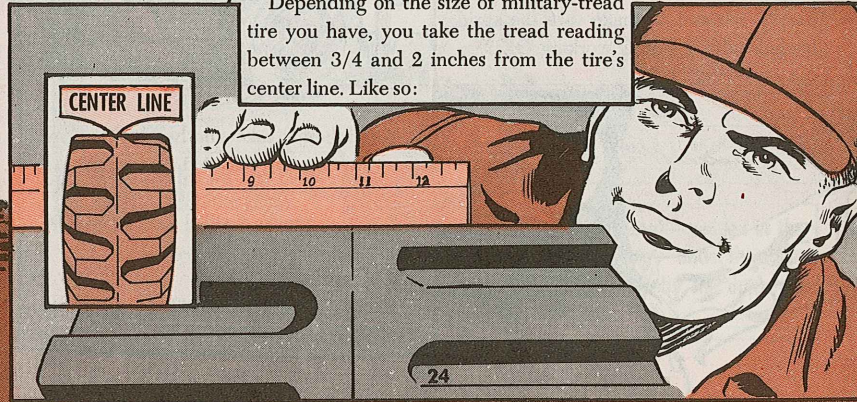


## MILITARY TREADS

To take a good retread job, a military-tread tire must be in good shape and have at least 4/32 inch of good tread. If you let a tire wear thinner than that, you can be sure you'll have to answer some questions when you put in for a replacement.

## USING THE GAGE

Depending on the size of military-tread tire you have, you take the tread reading between 3/4 and 2 inches from the tire's center line. Like so:



# OF TIME

THIS CHART  
TELLS YOU  
WHERE TO  
CHECK THE  
TREAD ACCORDING  
TO TIRE SIZE.

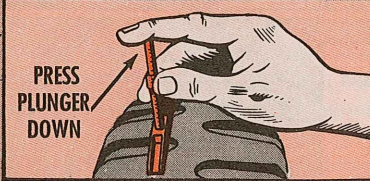
## THE COMMERCIALS

For retreading, passenger car tires must be in good shape and they must have a minimum of 2/32 inch of serviceable tread.

On these tires check the tread as close to the center of the tire as possible. Set the

FOR TIRE SIZE:	MEASURE FROM CENTER LINE:
700 x 16	3/4 in
900 x 16	1-1/4 in
825 x 20	1-1/4 in
900 x 20	1-1/4 in
1100 x 20	1-1/2 in
1200 x 20	1-1/2 in
1400 x 20	2 in

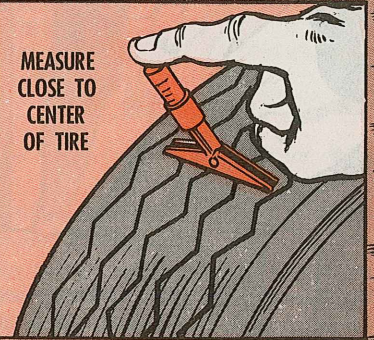
When you spot the right distance from the center line, place the gage on the tread so its contact bar is parallel to the



center line. Press the plunger lightly till its tip touches the tread groove. Take the gage reading just above the plunger sleeve.

Check the tread on each side of a tire, and at 3 evenly-spaced points around the tire. You can start at the valve on a mounted tire, or mark your starting point on an unmounted tire.

A reading of 4/32 inch at any spot means the tire's due for demounting.



gage so its bar spans the tread. Press the plunger easy-like and take your reading when its tip touches the tread groove. Check the tread at 3 evenly-spaced points around the tire. If you have a reading of 2/32 inch at any point—it's time to demount it.

## PLAY IT SAFE

Keep your gage handy and use it right.

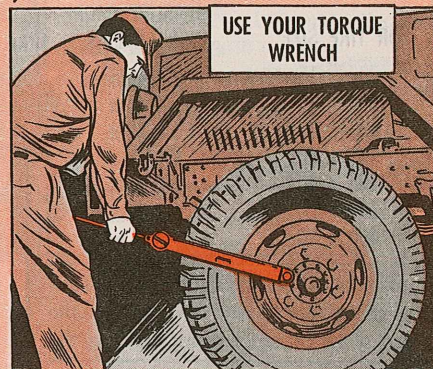
See TM 9-2610-200-20 (Jan 71), TM 9-2610-201-14 (Jul 72) and TM 9-2610-201-14-1 (Apr 73) for more tire care and tread-checking scoop.



# HINTS FOR

HEY, WHEEL JOCKS! WANTA HELP AVOID DOWNTIME? JUST...

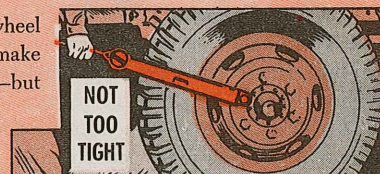
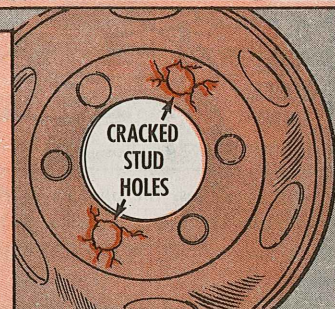
Take a minute to bone up on the right torque values for wheel lug nuts and studs on your trucks and trailers.



Loose wheels get bent and cracked... they cause cracked and gouged stud holes... they bust and strip studs and nuts.

You strip threads when you put too much torque on those studs and lug nuts.

So check your wheel mounts often to make sure they're tight—but not too tight.



HERE'S A LIST TO GUIDE YOU:

- 1/4-ton trucks, TM 218-series
- 3/4-ton trucks, TM 9-8030
- 1 1/4-ton trucks, TM 242-series
- 1 1/4-ton trucks, TM 244-series
- 2 1/2-ton trucks, TM 209-series
- 5-ton trucks, TM 211-series
- 5-ton trucks, TM 230-series
- 5-ton trucks, TM 260-series
- 10-ton trucks, TM 206-series

## Amount of Torque

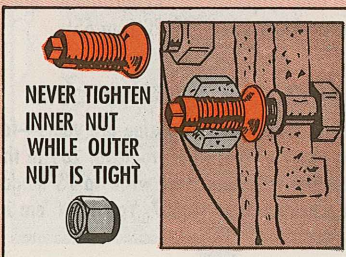
- 80-110 lb-ft
- 200-225 lb-ft
- 80 lb-ft
- 250-300 lb-ft
- 400-450 lb-ft
- 400-500 lb-ft
- 250-270 lb-ft
- 450-500 lb-ft
- 300-350 lb-ft

A trailer will usually have the same type wheels (and torque value for wheel mounting) as the truck pulling it.

When mounting tires, look close for bent, broken, or stripped studs, bent or dented rims, stud holes worn too large, airdrop eyes broken, or loose jam nuts.

If you replace a lost, stripped or broken lug nut, get the nut called for by your vehicle's parts manual. Just because a nut will screw on the stud doesn't mean it will hold the wheel on tight. Wrong lug nuts will gouge the ball seat and can let the wheels work loose.

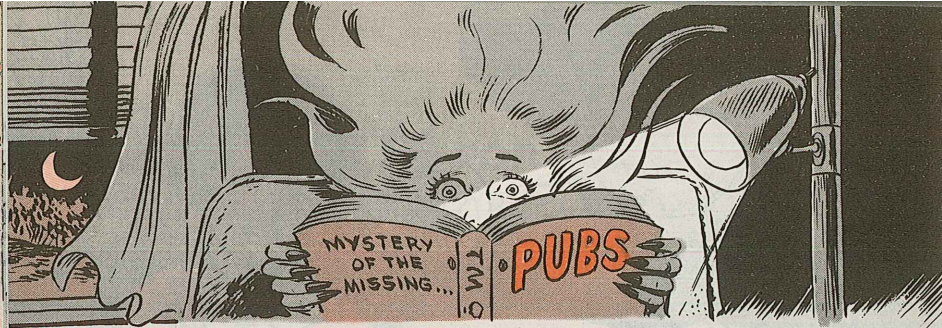
Make sure the nuts have a metal-to-metal tight seat by wire-brushing the studs to get dirt and rust off the threads. Do the same to those rim-to-rim mating surfaces on duals to get rid of loose paint, dirt and rust.



On trucks with dual wheels, loosen the outer wheel nut before you torque the inner wheel nut. Then follow through and torque the outer mounting nut. Never try to torque the inner nut while the outer one is tight.

Finally, alternate when you tighten the nuts so that the studs will be centered in the holes.





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 (Jun 72), and CH 4 (Apr 73), TM's, TB's, etc.; DA Pam 310-6 (Jul 73), SC's and SM's; and DA Pam (C) 310-9 (Mar 73), COMSEC Pubs.

#### TECHNICAL MANUALS

TM 3-1040-219-ESC, Oct Service Unit, Flame Thrower, M4A2  
TM 5-3805-251-12, Oct Loader, Scoop, DED, 2½ Cu. Yd (J. I. Case Mod MW-24B)  
TM 9-1005-257-ESC, Sep Armament Pod, Aircraft, 7.62 MM Machine Gun M18 M18A1  
TM 9-1100-200-10, Jul Honest John Atomic Warhead Sections  
TM 9-1430-383-20P, Nov Pershing Missile System  
TM 9-2320-244-10, Ch 1 Sep Truck, 1½-Ton, M715 M725 M726  
TM 9-2320-245-ESC Nov Car, Armored, (V-100 Commando) M706

TM 9-2350-222-10, Ch 12, Nov M728, CEV  
TM 9-2350-224-10, Ch 11, Sep M48A3 Tank  
TM 9-6920-485-14, Oct LANCE  
TM 10-1670-201-23, Oct Parachutes, Airdrop Equip  
TM 10-3900-203-ESC, Oct Truck Lift, Fork, RJF-060-MO2, CR 40B, ART30, MR-100 RTI-10, RTI10-1, MLT-6CH MLT-6, FT 6  
TM 10-8340-203-23P, Oct HAWK Maint Tents  
TM 11-5810-244-12P, Ch1, Nov TSEC/KY-28 Communications Security Equipment  
TM 11-5820-360-24P, Jul R-389/URR Radio Receiver  
TM 11-5820-396-20P, Oct PP-327(I)/GRC-9Y Power Supplies  
TM 11-5840-208-20, Ch 2, Nov AN/MPQ-4A Radar Set  
TM 11-5855-209-10, Ch 4, Oct AN/PVS-3 and AN/PVS-3A Night Vision Sight  
TM 11-6625-218-20P, Nov AN/TSM-16 Frequency Meter  
TM 11-6625-2631-14, Oct TS-2530 Battery Test Set

#### MISCELLANEOUS

SB 700-20-1, Oct List of Reportable Items  
LO 9-2320-233-12, Oct Cargo Truck 8 Ton, M520; Truck Wrecker 10 Ton, M553; Truck, Tanker, Fuel Serv M559  
LO 9-2350-300-10, Sep Gun, ADA, SP 20-MM M163  
TB 9-2300-295-15/9, Oct Warranty-Commercial Design Motor Vehicles  
TB 55-1510-209-20-1B, Nov Inspection of Fuse Mounting Blocks (U-21G and RU-21E)  
TB 55-6650-300-15, Ch 3, Nov Spectrometric Oil Analysis

#### NEW MOVIES

TF 9-4581 Epoxy Plastics Use In Vehicle Body Repair  
TF 9-4618 M551 Flotation Compartment Repair  
TF 10-4537 6,000 and 10,000-LB RT Forklifts  
TF 10-4663 Gen Purpose Tents, Med and Large (still pictures)  
TF 11-4534 Radio Set AN/GRC-106A  
TF 44-4553 Chaparral Operator PM  
TF 55-4680 LARC XV  
TF 55-4681 LARC LX

## Handle With Care

A torque wrench is not just another tool. It's a sensitive instrument. Never use it as a hammer or pry bar. If you accidentally drop a torque wrench, turn it in for calibration. Your hide may depend on its accuracy.

## Back To SB 700-20

SB 700-20-1, the separate list of reportable items, has been dropped. So it's back to the basic SB 700-20 for the list of equipment reportable under AR 220-1 and AR 711-5. All info you need will be found there. DA Cir 310-52 (Sep 73) has the word on this switch.

## Wrench For 2 1/2-Ton

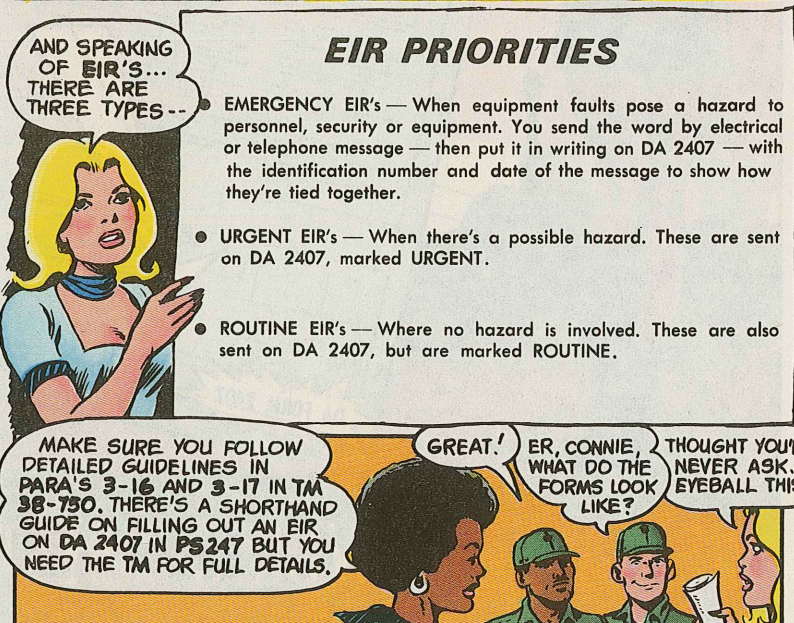
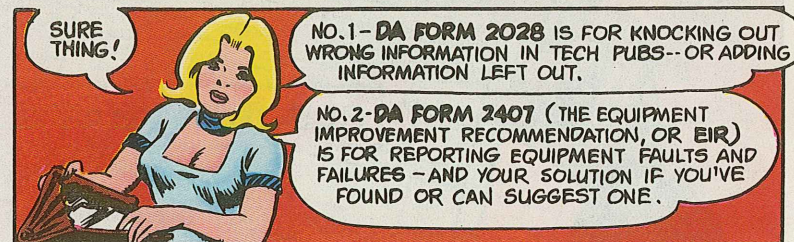
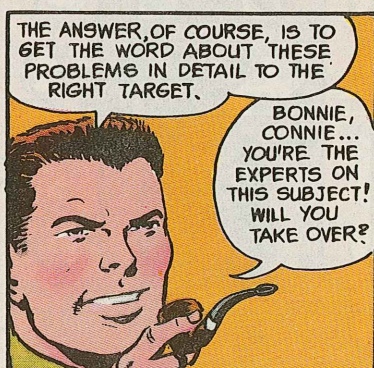
Now, when you want Wrench, wheel bearing nut, for your 2½-ton trucks you order FSN 5120-104-4076. This's the wrench listed as FSN 5120-795-0059 in Table 1, Special Tools and Equipment for Organizational Maintenance, TM 9-2320-209-20 (Apr 65).

## Write... They're Free

Back issues of PS Magazine are yours—for free. Many of the issues from No. 205 to the latest are still here. Just write to PS Magazine, Lexington, KY 40507. You'll get 'em in the mail.









HERE THEY  
ARE -- THE  
HOTTEST  
FORMS IN  
ARMY PM.

HERE THEY  
ARE -- THE  
HOTTEST  
FORMS IN  
ARMY PM.

[illegible]

DA FORM 2407

DE 11-2407

When equipment's unsafe or won't go,  
Or its pub has a fault that you know,  
Grab a form and report  
What's wrong--or just short!  
It can help you to win--and save dough!

**WRONG...IN DETAIL...**

**ON ITS PUBS**

**DA FORM 2028**

DA FORM 2028

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.**



## EIR DIGESTS

EIR'S ARE SUCH HOT ITEMS, ON ALL TYPES OF ARMY EQUIPMENT THAT EACH AMC\* COMMODITY COMMAND PUBLISHES ONE OR MORE DIGESTS OF FAULTS REPORTED, ALONG WITH NUMBERS OF MWO'S, DETAILS ON FIXES OR OTHER SOLUTIONS.

THEY'RE PUBLISHED QUARTERLY AND DISTRIBUTED, MOSTLY BY PIN-POINT, TO UNITS WHICH HAVE FILED THE RIGHT DA FORM FOR EACH PARTICULAR TYPE OF EQUIPMENT. THE AG KEEPS NO STOCKS SO YOU'VE GOT TO BE ON HIS INITIAL DISTRIBUTION LIST TO GET 'EM.

HERE THEY ARE BY NEWLY ASSIGNED 43-SERIES TB NUMBER

Basic TB No. (followed by 1, 2, 3, or 4 for the quarter covered):

Order On This Form:

43-0001-6	Communication Security (ECOM)	12-43
43-0001-9	Electronics (ECOM)	12-34
43-0001-16	NIKE Hercules (MICOM)	12-32
43-0001-17	CHAPARRAL (MICOM)	12-32
43-0001-18	HAWK (MICOM)	12-32
43-0001-19	Fire Distrib system AN/TSQ-51 (MICOM)	12-32
43-0001-20	REDEYE (MICOM)	12-32
43-0001-21	Calibration std & access (MICOM)	12-34
43-0001-22	Converter, coord ad system AN/GSA-77 (MICOM)	12-32
43-0001-23	Land combat support system (MICOM)	12-32
43-0001-24	PERSHING (MICOM)	12-32
43-0001-25	SHILLELAGH (MICOM)	12-32
43-0001-26	SERGEANT (MICOM)	12-32
43-0001-27	TOW antitank aslt system (MICOM)	12-32
43-0001-34	Chemical equipment (ARMCOM)	12-28
43-0001-36	Weapons (ARMCOM)	12-34
43-0001-11	Troop Support Command equipment (TROSCOM)	12-25
43-0001-39	Tank-Automotive equipment (TACOM)	12-38
43-0001-40	Commercial automotive equipment (TACOM)	12-38
43-0001-1	Fixed wing aircraft & air delivery eqpt (AVSCOM)	12-31
43-0001-2	Rotary wing aircraft (AVSCOM)	12-31

\*AMC = US Army Materiel Command

## PUB PUZZLES

IN SPITE OF SHARP WRITING AND EDITING, PUBS DO TURN UP NOW AND THEN WITH SOME REAL BLOOPERS.



WITH NUMBERS F'RINSTANCE, ALL IT TAKES IS ONE SLIPPED DIGIT TO TURN THINGS SOUR IN YOUR SUPPLY SYSTEM.



SO ANYTIME YOU FIND THERE'S AN ERROR OR THAT NEEDED INFORMATION HAS BEEN OMITTED FROM YOUR EQUIPMENT PUB REPORT IT ON DA FORM 2028!



WHERE DO WE SEND THE FORM, CONNIE?

YOU'LL FIND THE ADDRESS TOO SMALL TO LISTED IN THE PUB ITSELF.



AND NOTHING'S TOO SMALL TO REPORT IF IT FOULS UP YOUR OPERATION OR MAINTENANCE. EVEN A WORD OR A PUNCTUATION MARK OUT OF PLACE CAN CREATE A HAZARD.

GUIDELINES ON THE DA 2028 ARE RIGHT ON THE FORM.

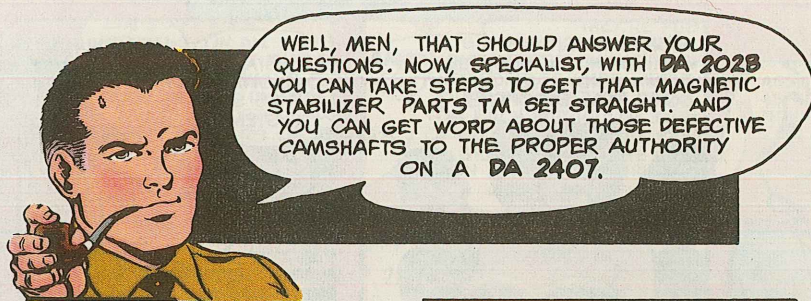


PART I IS FOR ALL PUBS EXCEPT PARTS MANUALS AND SUPPLY CATALOGS. PART II IS FOR THESE SUPPLY PUBS, AND PART III IS FOR GENERAL COMMENTS.

YOUR BEST BET IS TO KEEP A STACK OF THESE FORMS DA 2407 AND DA 2028-- READY AT HAND.







## AIR MOBILITY

## HOW'S YOUR PAD, DAD?

Dear Windy,  
We're located at a post that has a compass rose for checking aircraft compasses.  
How often is the pad calibrated and how much deviation are we allowed, Windy?

SP6 E. L. B.

I WUZ TOLD I COULD FIND A FREE ONE HERE.



Dear Specialist E. L. B.,

Appendix VII of TM 5-823-4 (Apr 66) on airfield-heliport operational and maintenance facilities has the word on constructing a compass rose. The pub does not have the info on how often it's calibrated, tho.

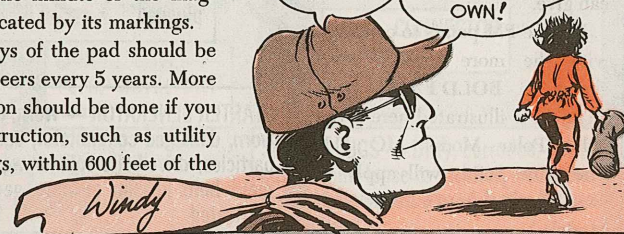
The Federal Aviation Administration has published Advisory Circular Number 150/5325-8 (8 May 69), Compass Calibration Pad.

Para 7 of the circular says each of the 12 radials, at 30-degree intervals, must be oriented within one minute of the magnetic bearing indicated by its markings.

Magnetic surveys of the pad should be done by the engineers every 5 years. More frequent calibration should be done if you have major construction, such as utility lines and buildings, within 600 feet of the pad.

DON'T GO 'WAY MAD, RAD!

TM 5-823-4 (ARR 66) TELLS YOU HOW TO MAKE YOUR OWN!





BE YOUR OWN

INSPECTOR

The

# APU and YOU

CHECK THE  
**BOLD FACE**  
ITEMS FIRST!  
THEY CAN BE  
CRITICAL!

**AIR CLEANER**—Clogged, dirty  
element or filter body, dam-  
aged or missing filter cap.

**ENGINE FUEL FILTER** —  
Dirty, clogged.

**ENGINE** — Loose, dam-  
aged, dirty, air shroud re-  
moved, clogged.

**FUEL SELECTOR VALVE**  
— Leakage, wrong set-  
ting.

**MAGNETO** — Pitted, dirty or burned  
points, wrong gap adjustment, vent  
plugged.

**STARTER GENERATOR** — Worn, damaged brushes;  
worn, damaged commutator; carbon, loose metal  
particles; drive-belts split or worn, out of adjust-  
ment; bolts missing or loose, generator loose, not  
lubricated.

LOVE  
THAT  
APU!

ME  
TOO!

**CONTROL PANEL**—Loose or in-  
operative knobs and switches,  
loose mounting bolts.

**WIRING**—Broken; peeled  
or worn insulation

**CABLE TO AIRCRAFT**  
—Frayed, split, torn.

**LOAD CONNECTOR**  
— Bent.

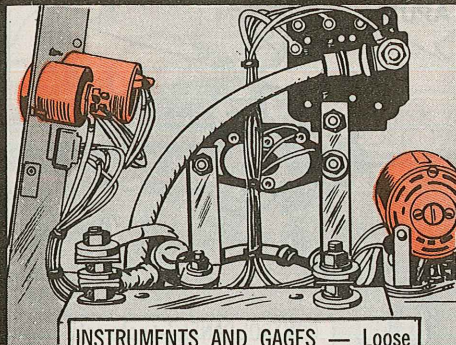
**CANVAS COVER** —  
Torn, worn, mil-  
dewed.

**SPARK PLUGS** — Dirty, corroded, out of  
adjustment, loose or cracked insulators,  
burned electrodes, frayed leads, broken  
connections.

**RIGHT  
SIDE/  
FRONT** →



# ← LEFT SIDE / REAR



**INSTRUMENTS AND GAGES** — Loose mounting hardware, instruments and gages won't work.

LEFT  
SIDE  
LOOKS  
GREAT!

**BATTERY** — Cables torn, peeled, or frayed; loose mounting bolts, loose cables or connections, quick-disconnect not functional. Terminals dirty, corroded, electrolyte low.

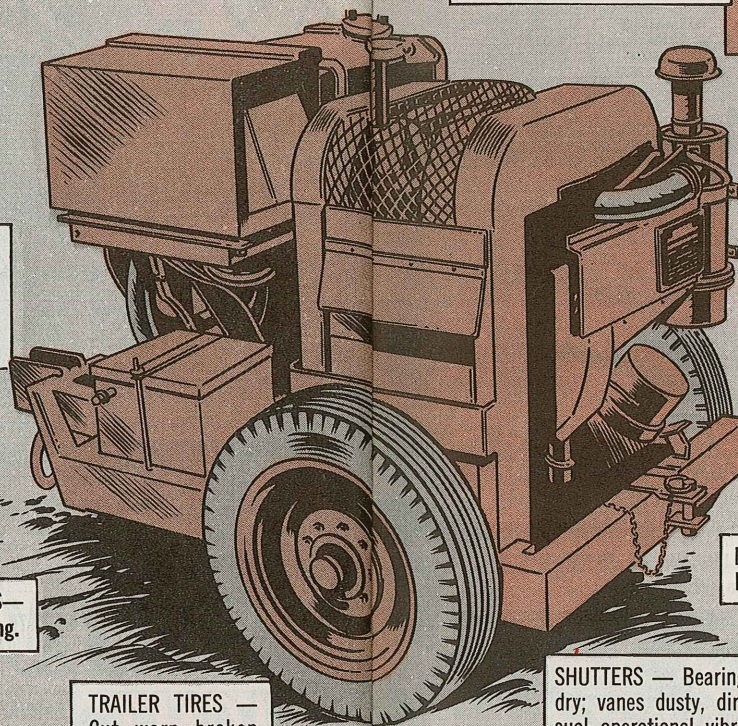
**TOWBAR** — Worn, damaged.

**WHEEL LUGS** — Loose, missing.

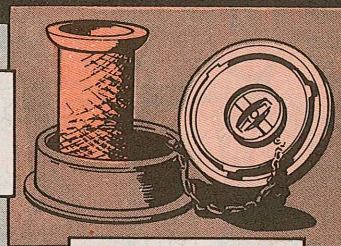
**EXHAUST LINE** — Dirty, clogged, split, rain cap missing.

**TRAILER TIRES** — Cut, worn, broken rubber.

THE REAR  
LOOKS GOOD  
TO ME!



**GENERATOR FUEL STRAINER SCREEN** — Dirty, stopped, loose thumb-nut, missing nut, worn gasket, dirty element.



**GENERATOR FUEL TANK** — Cap missing, cap chain broken.

**AIR CLEANER HOSE** — Torn, cut, worn.

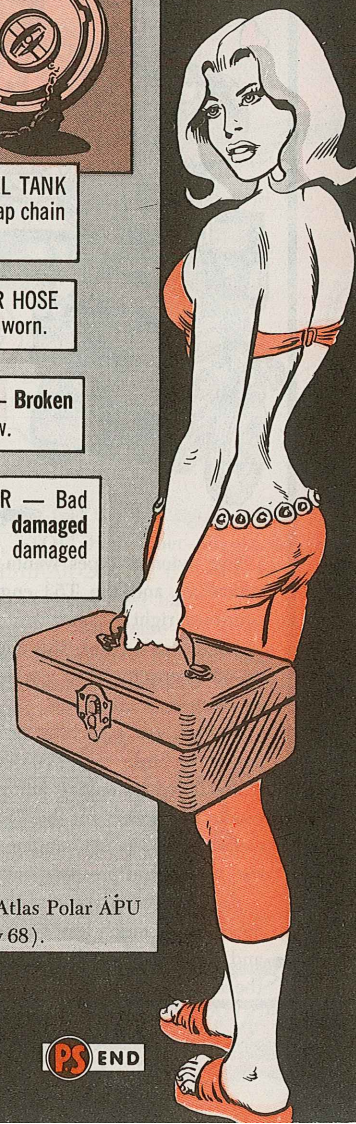
**CRANKCASE** — Broken oil line, oil low.

**ENGINE OIL FILTER** — Bad gasket, clogged or damaged element, filter cap damaged or missing.

**BASE FRAME** — Bent, out of line.

**SHUTTERS** — Bearing points dry; vanes dusty, dirty; unusual operational vibration or noise.

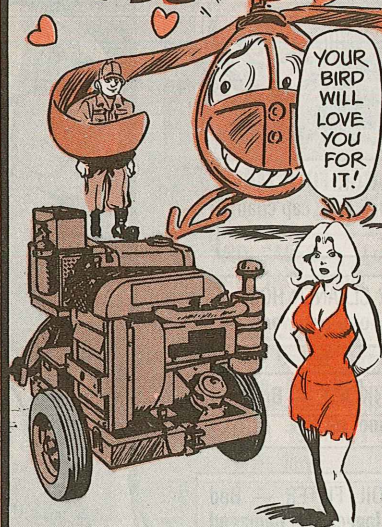
The right pub for your Atlas Polar APU  
is TM 5-6115-351-15 (May 68).





U-8 PROP BLADE CLAMPS . . .

# USE AN APU



You avionics types wanta protect yourselves and the T53 engines on your bird, right?

Then, don't crank the engines to rip-off electricity when you're making an electronics check-out.

Instead, use a rectifier or APU to power the bird.

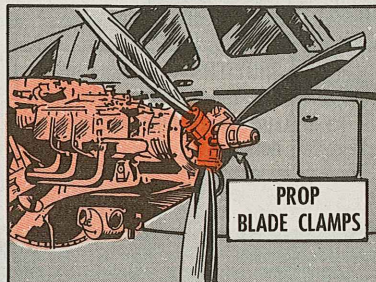
You'll reduce engine idling, which causes bad scenes for the T53 (especially the T53-L-701) engine, such as seal coking and pressure leaks.

And danger to you and your buddies will be much less because rotor and prop blades will not be stirring the air.

# GREASE 'EM RIGHT



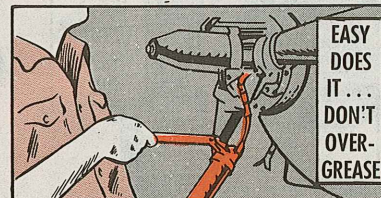
Over-greasing the U-8's prop blade clamps can cause the 2 blade clamp gaskets to pop—unless you've got a bird with a relief fitting.



The over-grease has no place to go, so it pressures the gaskets . . . or it masquerades as grip-seal leakage when it's merely over-grease.

Or it can pop the blade-mounting gasket behind the blade-mounting bearing.

Losing grease from one side of the prop can throw the prop out of balance. Always insert the grease with a grease gun,



and pump out any stray air from the gun before you apply the grease.

When you feel the first signs of back-pressure, STOP! Remember—Figure 2-1, TM 55-1510-201-20 (Jan 69) calls for a maximum of 3 shots per blade.

In removing the grease gun from the lubrication fitting, pull the gun straight out. Never push it to one side, or up and down.





# SAFE AT ANY SPEED

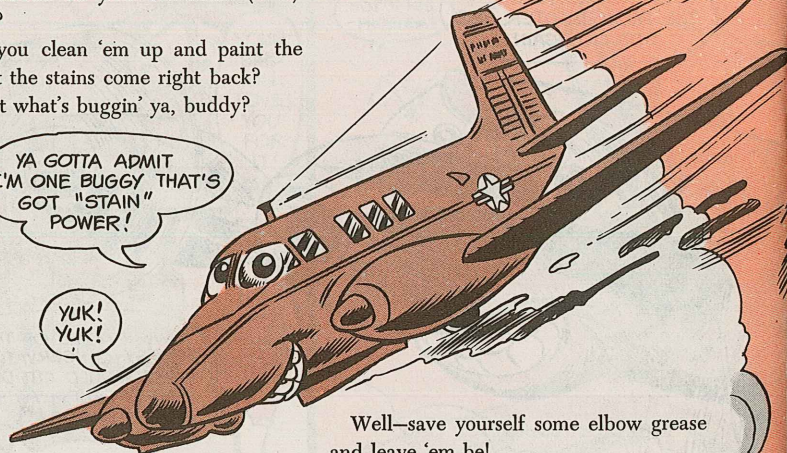
You say you have some fuel stains around the supercharger housing and impeller section on your Seminole (U-8) engines?

And you clean 'em up and paint the area but the stains come right back?

Is that what's buggin' ya, buddy?

YA GOTTA ADMIT  
I'M ONE BUGGY THAT'S  
GOT "STAIN"  
POWER!

YUK!  
YUK!



Well—save yourself some elbow grease and leave 'em be!

The fuel-air mixture is minor vapor seepage and the air stream will carry away any fumes.

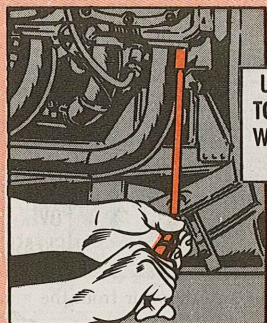
## NUTS—TORQUE 'EM!

Somebody's been using the wrong kind of wrench to torque the exhaust pipe nuts on the U-8 engine.

And somebody's been over-torquing and stripping the stud threads out of the aluminum cylinder head boss.

If you happen to notice somebody goofin' up the detail, as per above, slip him the word, willya?

Use the torque wrench only . . . and the right torque value.



USE A  
TORQUE  
WRENCH  
ONLY

## LESSER OF 2 EVILS

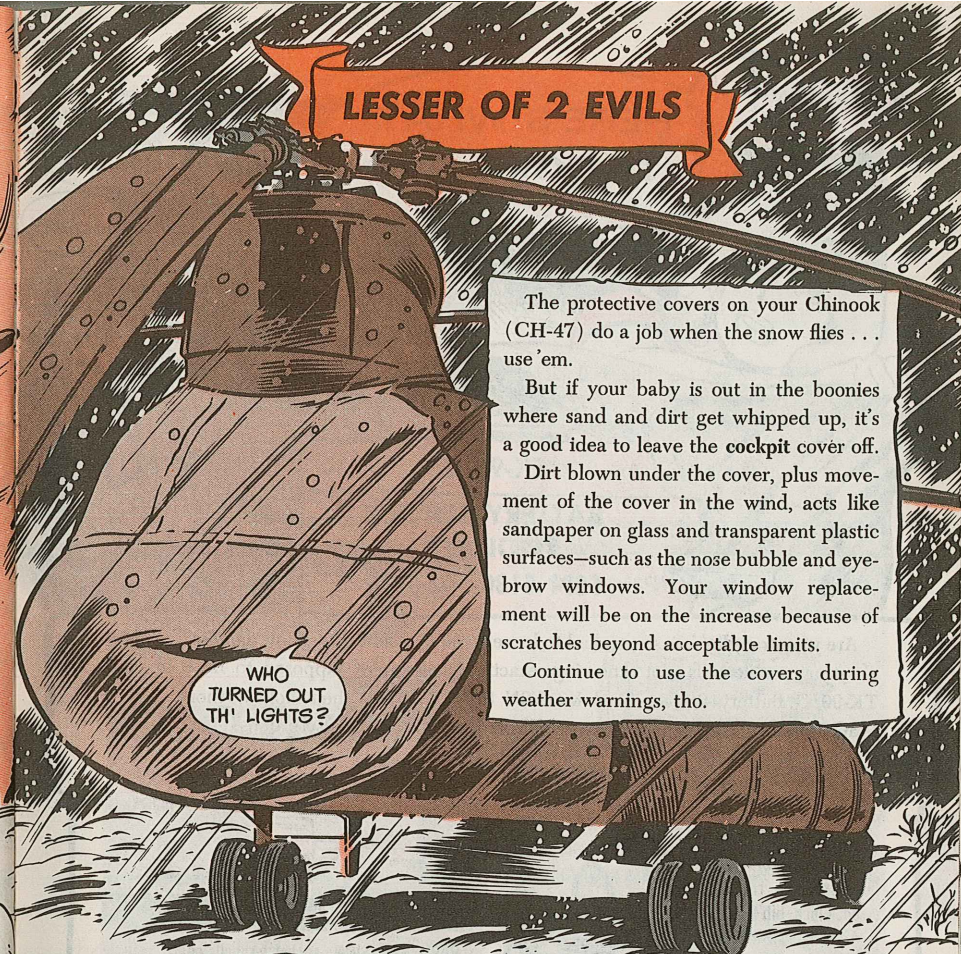
The protective covers on your Chinook (CH-47) do a job when the snow flies . . . use 'em.

But if your baby is out in the boonies where sand and dirt get whipped up, it's a good idea to leave the cockpit cover off.

Dirt blown under the cover, plus movement of the cover in the wind, acts like sandpaper on glass and transparent plastic surfaces—such as the nose bubble and eyebrow windows. Your window replacement will be on the increase because of scratches beyond acceptable limits.

Continue to use the covers during weather warnings, tho.

WHO  
TURNED OUT  
TH' LIGHTS?



## ALL THE COMFORTS

You Ute (U-21A) types no longer have to order the chair armrest to replace a shot ash tray for your favorite pilot and co-pilot. P/N 716D50300, FSN 1680-144-5590, will now get you the ash tray only. Use FSN 1680-168-5748 for the ash tray in the VIP section.

AN' NO  
BUTTS  
ABOUT IT!





COMMUNICATIONS

HERE'S WHAT  
IT LOOKS LIKE

WOW!

MY NICKEL  
CADS WILL  
LOVE THIS.

A  
WINNER!

TK-90/G

BATTERY SERVICE  
TOOL KIT

FSN 5180-542-5812

Are you stranglin' 'cause you had to leave some of your battery job danglin'? If part of your problem is not knowing exactly what you're supposed to have in your TK-90/G Battery Service Tool Kit FSN 5180-542-5812, then choke no more. SC 5180-91-CL-RO3 (Mar 70) gives you the FSN's and descriptions.

APRON, IMPERMEABLE:  
cotton duck, both sides  
chloroprene rubber coated,  
black, bib type, 1 size,  
48-in lg, 34 $\frac{1}{2}$ -in wide



FSN 8415-082-6108

ATTACHMENT, SOCKET WRENCH: internal  
(socket headset and capscrew);  $\frac{1}{4}$ -in sq dr



FSN 5120-596-0934 .....  $\frac{1}{8}$ -in hex plug



FSN 5120-596-0940 .....  $\frac{5}{32}$ -in hex plug

BAR, EXTENSION: socket wrench; solid;  $\frac{1}{4}$ -in  
sq dr, 2-in long



FSN 5120-227-8105

BATTERY FILLER, SYR-  
INGE: bulb type, 4-oz cap,  
Sonotone dwg Z-9972, or  
equal



FSN 6140-376-9635

BORIC ACID: crystals,  
commercial pure



FSN 6810-264-6535

BRUSH, ARTIST'S: round, dome top, narrow,  
style 11, 0.75-in lg x 7/64-in dia



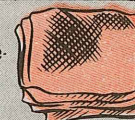
FSN 8020-224-8028

BRUSH, PAINT: sash-tool, syn filament, oval,  
2 $\frac{1}{2}$ -in lg bristles, size No. 12



FSN 8020-297-6657

CLOTH, COTTON: cheese-  
cloth, lintless, bleached



FSN 8305-267-3015 ..... 3/set

COMPOUND, CORROSION  
PREVENTIVE: 1-pt can



FSN 8030-903-0931

FLASHLIGHT: MX-991/U



FSN 6230-264-8261

Includes:  
FILTER, BLACKOUT:



FSN 6230-128-2464 ..... 2/set



LAMP, INCANDESCENT: 2.7 volts, 0.15  
amp, bulb 1/2 clear glass, GE Co PR-9  
or equal

FSN 6240-155-7935 ..... 2/set



LENS, DIFFUSION: per dwg SC-D-30650

FSN 6230-356-4825

BATTERY BA-30 (not included)

FSN 6135-120-1020 ..... 4/set

GLOVES, RUBBER: seamless, natural color



FSN 8415-266-8677

GOGGLES, INDUSTRIAL: head band supported;  
designed to be worn over personal spectacles;  
w/o carrying case; Fed Spec GGG-G-521, type  
II



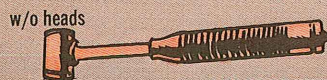
FSN 4240-203-0317

HAMMER: inserted face, w/screw-in head,  
plastic inserts, 1-in dia insert, 9-oz head,  
11-in lg handle



FSN 5120-243-2953



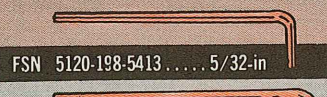


FSN 5120-903-8546



FSN 5120-293-2999

KEY, SOCKET HEAD SCREW: hex, L-type handle, long series



FSN 5120-198-5410



FSN 5110-240-5943

PLIERS, DIAGONAL CUTTING: regular nose; w/stripping notches, sleeve openings, and skinning hole; 6-in nom size



PUNCH: drive pin, 3/16-in dia body, 1/4-in dia point, size 3, 4-in lg o/a



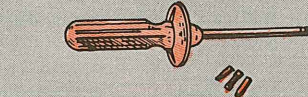
SCREWDRIVER, FLAT TIP: plastic handle; light duty; .030-in thk x 3/16-in wd tip, 3-in nom blade lg

FSN 5120-236-2127

SCREWDRIVER, FLAT TIP: plastic handle; med-heavy duty; .037-in thk x 1/4-in wd tip, 4-in nom blade lg



SCREWDRIVER, TORQUE INDICATING: incl flat screwdriver bit, Phillips cross bit, No. 2 point size, 1/4-in sq dr x 1/4-in lg socket, 0-25-in-lb torque cap, APCO Mossberg Co No. B-25, or equal



SOCKET, SOCKET WRENCH: hex (6-point), 1/4-in sq dr, regular length

FSN 5120-236-2264

FSN 5120-232-5703

FSN 5120-241-3186

SOCKET, SOCKET WRENCH: 12-point wrench opening, 1/4-in sq dr

FSN 5120-189-8610

TOOL BOX, PORTABLE: w/2-comp cantilever tray; steel, enameled finish; 7-in h x 7-in wd x 19-in lg

FSN 5140-331-5496

TOOTH BRUSH: plastic bristles

FSN 8530-290-2920

WRENCH, BATTERY FILLER CAP: rigid T-handle; 1.250-in wd x 2.250-in lg; Sonotone No. 16515 or equal

FSN 5120-618-5320

WRENCH, BATTERY FILLER CAP: rigid T-handle; 1-in dia, 2.500-in lg

FSN 5120-618-5305

WRENCH, SOCKET (HANDLED): hex; spin type; screwdriver grip; 6-in lg

FSN 5120-241-3188



FSN 5120-224-2596

WRENCH, SOCKET (HANDLED): hex; spin type; screwdriver grip; 7-in lg

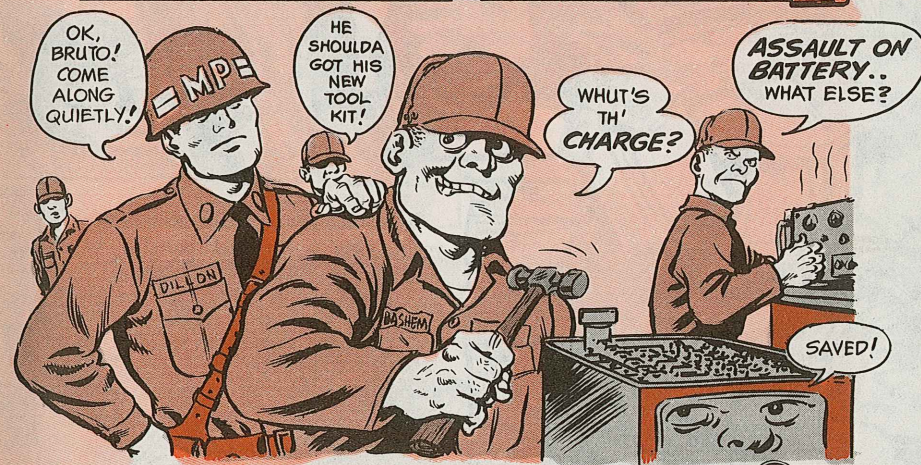
FSN 5120-293-0375

WRENCH, TORQUE: deflecting beam; indicating plate; direct reading; 0-60-in-lb torque cap; 1/4-in sq dr tang; size 3

FSN 5120-529-2552

WRENCH, VENT PLUG: rigid T-handle; 2-in wd x .85-in dia x 2.50-in lg

FSN 5120-087-2969





USE GASKET ...

# GET GAS BLAST

HEY, IS THAT A MOCCASIN BITIN' MY BACK?

NOPE! MOST LIKELY IT'S A GAS LEAK FROM AROUND YOUR RADIO SET'S BATTERY CONNECTOR!

If something bites you in the back when you're totin' a backpack portable AN/PRC-25, -77 radio set, it just might be a gas blast.

That's right.

Hydrogen gas from that BA-4386/U magnesium battery has a way of getting into the chassis of your portable pack ... and POW!

50

# OFF YOUR BACK

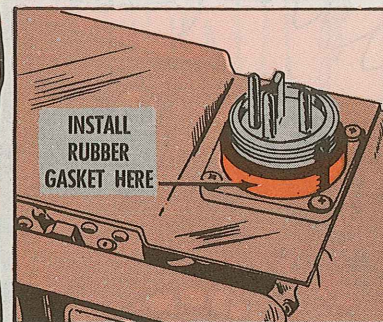
To keep the gas from gettin' to be any more of a headache, a rubber gasket (FSN

Puttin' in the gasket's no sweat.

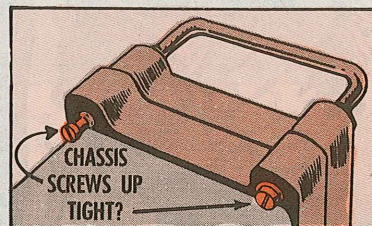
Take the radio chassis out of the case.

Slip the rubber gasket over the battery connector, making it snug at the screws holding the connector to the chassis.

Make sure the O-rings aren't caught under the gasket.



5330-109-6450) has been added to seal out seepage from around the battery connector of your RT-505 or RT-841.

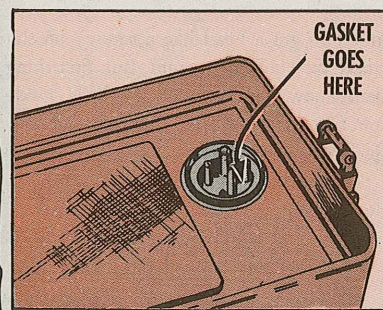


Put the chassis back in the case and screw it up tight.

This gasket, along with the pressure relief valve in that CY-2562 battery case applied under MWO 11-5800-211-30-1 (Sep 72), should snuff out injury to operators and damage to the radio set.

Incidentally, if you get a new radio set look for the gasket. If it's not installed, put one in.

Keep an eye peeled for TB 750-911-4, (Sep 73) which carries the info on the gasket.



THEM'SSS FIGHTIN' WORDSSSS - I NEVER MET A SSSNAKE YET WHO'SSSS A BACK-BITER!



# A KNOBBY RIDDLE

LOOSE  
KNOBS,  
EH?

I'LL  
FIX 'EM--  
PRONTO!

HALP!



When can getting something too tight make it too loose?

Easy. When the something is the volume control knob on your RT-524, RT-246, R-442 or one of their control boxes, that's when.

You can tighten away at that sleeve

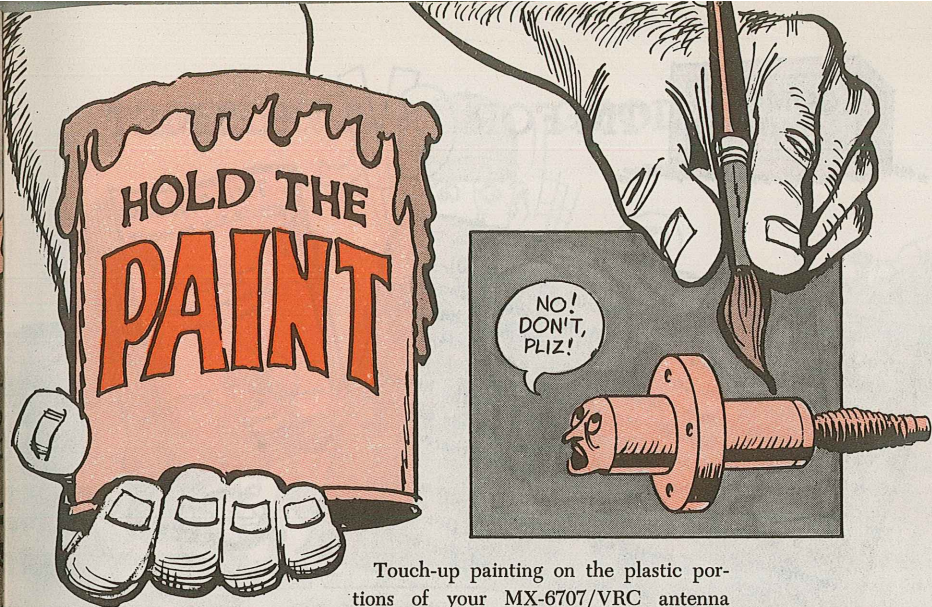
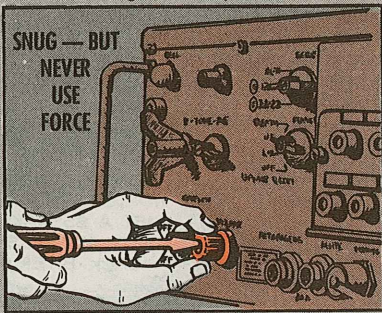
nut (it's got a head like a screw) on the shaft the knob fits around. But, first thing you know, you've bent the little guide pin that sticks out from the shaft and rests in a groove on the back of the knob.

O' course, that'll make the knob too loose to operate just right. You'll have to do some extra turning to get it to work. In fact, it could stop working altogether.

Only way to take care of it is send the RT, receiver or control box to your support.

So be careful when you're tightening that sleeve nut. Grasp the knob when you're tightening the nut, and just get the nut snug—never force it. Same thing goes for the sleeve nuts on the LIGHT switches.

SNUG — BUT  
NEVER  
USE  
FORCE



Touch-up painting on the plastic portions of your MX-6707/VRC antenna matching unit is about as helpful as a

rattlesnake bite on top of double pneumonia.

Paint cracks the plastic (also any rubber components) and permits moisture to foul up the matching unit.

So, if the plastic needs cleaning, do it with a cloth dampened with water. Do not use trichloroethane cleaning compound. For other cleaning and painting pointers, eyeball paras 3-6 and 4-5 of TM 11-5985-262-12.

## ON AN ANTENNA

The antenna tip on your MS-118A antenna section been comin' unglued lately?



Try a good epoxy, like the one you get with FSN 8040-952-5713. It'll turn the trick till a new-design tip with better adhesive comes your way.



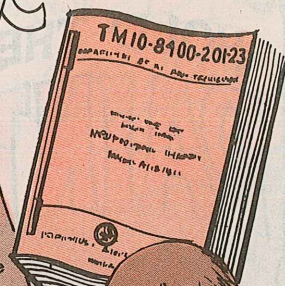


# TM FOR **cvc** HELMET

Dear Editor,  
Hidden away in TM 10-8400-201-23 (Jun 70), on repair of clothing and equipment, is a whole chapter (CH 5) on repair of the Combat Vehicle Crewman's helmet. The TM also includes repair part stock numbers, plus references for the helmet's commo equipment. Many Infantry and Armor units which use the helmet are not aware of the TM, and a lot of helmets are salvaged (some deliberately) which could otherwise be repaired.  
Maybe you can get the word out in PS.

Mr. Don C. Maier  
Ft. Rucker, AL

PARTS FOR THE  
HEADSET MICROPHONE ARE  
IN TM 11-5965-282-15!



## IT'S FOR YOUR HEAD, NED

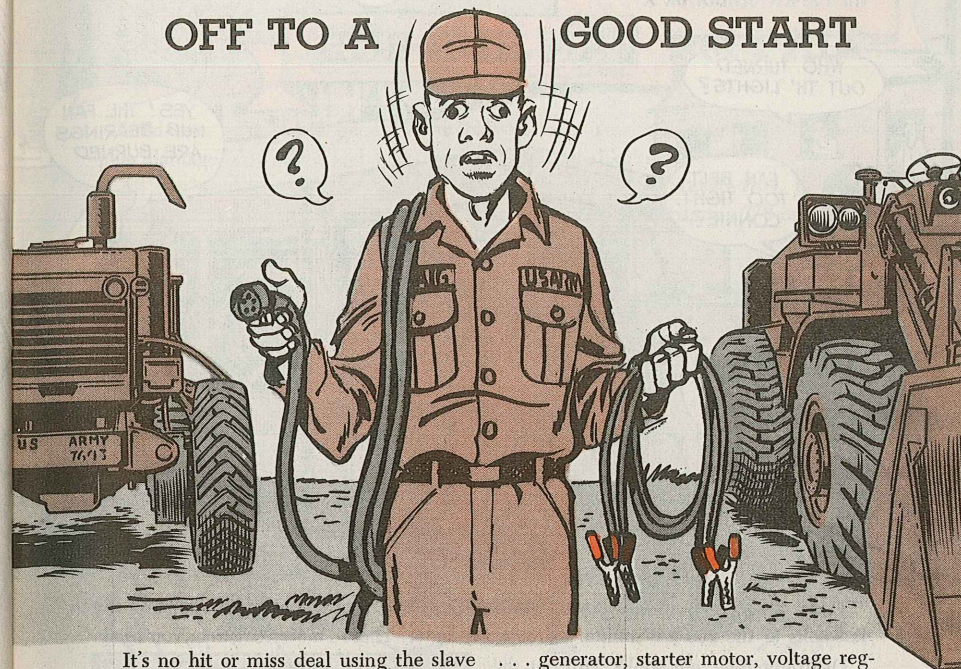
WHAT  
IS IT?

IT'S NOT A FOOTBALL.  
NOR ROCKING CHAIR.  
NOR A YO-YO.  
NOR SOUP TUREEN.  
NOR WHEELBARROW.

A CVC HELMET,  
THAT'S WHAT.

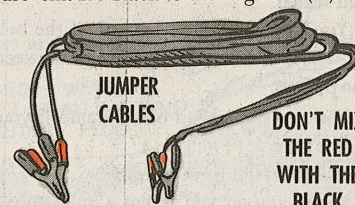
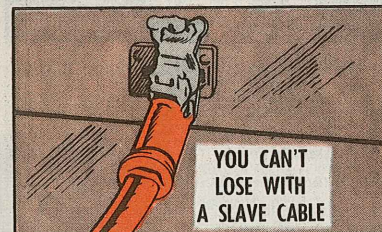
You wear it on your head. To keep your brains intact.  
And if the high-impact plastic is cracked or broken . . . it's not high-impact any more.

## OFF TO A GOOD START



It's no hit or miss deal using the slave . . . generator, starter motor, voltage reg-  
cable to start a Model 645M or an MW24 ular . . . all of it.

So, know before you go, if you gotta  
job for you right off the bat. So, make it use 'em. It's black to the negative (-) and  
your first choice over the jumper cables.



red to the positive (+) terminal. Mix 'em  
and you've got the fireworks.

If you make one mistake with the  
jumper cables, the sparks will fly. If the  
alligator clips are put on wrong it'll cause  
reverse polarity. This could make a scrap  
heap out of an entire electrical system

To be sure you're safe, check the ter-  
minal connections at least twice before  
making contact. It's always worth it and  
it doesn't cost you a cent.

Remember, too, you never push or tow  
a loader to start it.



THE 200-KW GENERATOR SET ...

## FAN HUB RUB

WHO TURNED  
OUT TH' LIGHTS?

FAN BELT  
TOO TIGHT,  
CONNIE?

MUSCLES  
MCGEE  
STRIKES  
AGAIN!

YES! THE FAN  
HUB BEARINGS  
ARE BURNED  
OUT!

Hold down your muscle power and pick up your wits while you're adjusting the fan belts of the 200-KW military design generator. There's more to it than you think.

Overtightening 'em could burn out the fan hub bearings. You can't grease 'em up, either, 'cause the hub is factory lubed and sealed.

You'll be right on target only if the belt tension is  $\frac{3}{4}$  to 1 inch midway between the pulleys.

You can stay ahead of the game if you inspect the tension often and keep it right all the time.

Still everything goes wrong?

Well, brother, you've got a substitute fan hub assembly.

It's not the same as the factory job, so it needs more special care.

Take out the fan hub pipe plug and put in a grease fitting.

One or 2 shots of grease will do the trick here. Watch so you don't overgrease it, though.



EASY ON  
THE ADJUSTING  
CAPSCREW



TAKE OUT  
PIPE PLUG  
AND INSERT  
FITTING HERE

After you take out the fitting and put back the plug, your troubles should be gone for good ... if you keep your guard up.

SPARK



PLUG

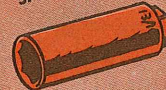
PM PALS

Hold one, vehicle and generator knuckle-busters. You can stop military, spark plug damage, downtime and parts replacement cost—like now!

All you need is a  $\frac{13}{16}$ -in Socket, socket wrench, FSN 5120-945-4704, if you're working on 14-MM military-design spark plug insert-removal jobs; or a  $\frac{7}{8}$ -in wrench, FSN 5120-199-6996, if working on 18-MM jobbies.

TRY THESE 6-PT HEX  
HEAD WRENCHES,  
KNUCKLE  
SAVERS.

FOR 14-MM  
SPARK PLUGS



$\frac{13}{16}$ -IN SOCKET  
WRENCH

FOR 18-MM  
SPARK PLUGS



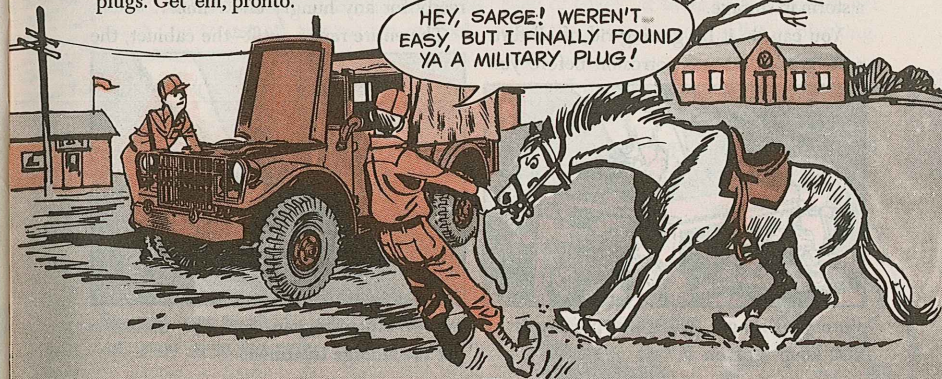
$\frac{7}{8}$ -IN  
SOCKET WRENCH

Both deep-style wrenches are in your new Automotive Mechanics Tool Kit; No. 1 and No. 2 Common Shop Equipment; and the Electrical Repair Kit.

Use SB 700-50 as your authority to request these wrenches until they show up in your tool kit supply catalogs.

Yessir-e-e-e, these 6-pt hex head wrenches are real pals for your military design plugs. Get 'em, pronto.

HEY, SARGE! WEREN'T  
EASY, BUT I FINALLY FOUND  
YA A MILITARY PLUG!





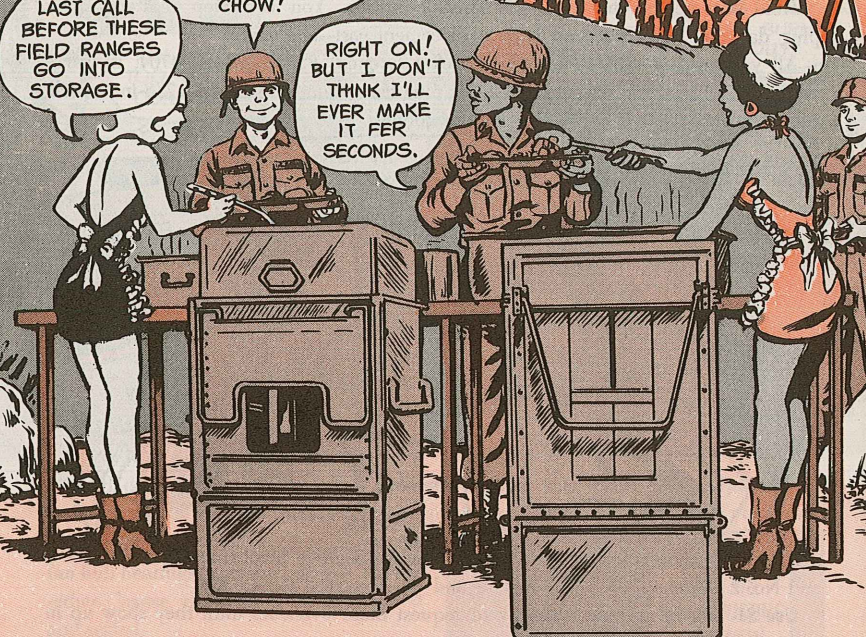
YOUR FIELD RANGE STORAGE SCOOP . . .

# KNOW YOUR BEANS

LAST CALL BEFORE THESE FIELD RANGES GO INTO STORAGE.

CONNIE 'N' BONNIE SURE PUT OUT GREAT CHOW!

RIGHT ON! BUT I DON'T THINK I'LL EVER MAKE IT FER SECONDS.



Stop your field range from cooking up a storm in storage.

You can do it by getting rid of all dirt, rust, grease, oil and corrosion before you



store your range. Then, use preservatives and keep tabs on it.

This is the only way it'll always be ready for any hungry chow line.

The entire range outfit—the cabinet, the



burner unit, the pans and the utensils—get the storage treatment.

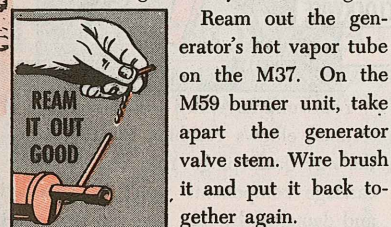
Make sure you slush the insides of the air and the fuel tank of the burner units with cleaning solvent, PD-680, FSN 6850-664-5685.



Get with the threads and the flanged connections, too. Wash 'em and wire



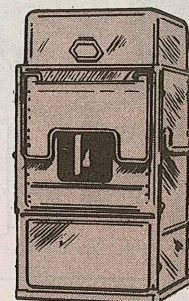
brush 'em to get off any carbon or gook.



Finish off by cleaning and coating all burners with P-10, Grade 2, preservative oil, FSN 9150-111-3199.

Take a close look at your M59 field range cabinet. If you have the 1967 model, give it special care.

## M59 CABINET



This one can corrode and peel. After you've cleaned it, cover it with the corrosion preventive compound P-14, FSN 8030-251-5048.

The utensils and pans get that corrosion preventive compound, too. Remember to wrap each utensil individually in a barrier material. A roll of this comes with FSN 8135-226-3124.

## 1967 MODEL NEEDS SPECIAL CARE

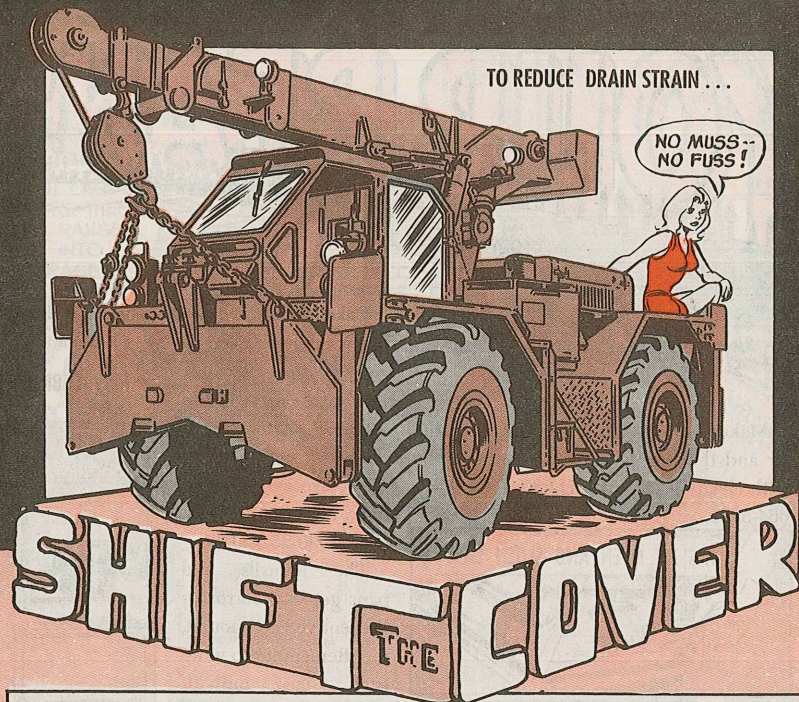
Where you store the field range outfit could mean everything. Use a building, shed or cover. If there's none around, get it off the ground onto a pallet or planking. Put a canvas, tarp or any water-proofing material over it. Be sure the location is firm, level and well drained.

Total success depends on how the field range behaves during the storage period.

KEEP SCORE ON DD FORM 314 EVERY TIME YOU MAKE ANY PERIODIC CHECK OR SERVICE.



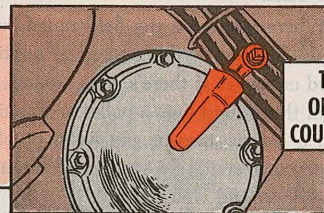




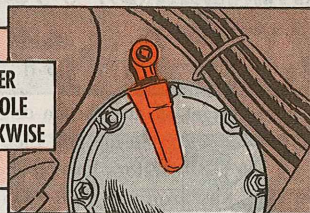
TO REDUCE DRAIN STRAIN ...

NO MUSS--  
NO FUSS!

All it takes is the right move to score big in any game. Same's true to make draining the crankcase oil of the Model H-446 5-ton crane a cinch. You gotta get the crankcase drain cover moved over one-bolt-hole, counterclockwise.



TURN COVER  
ONE-BOLT-HOLE  
COUNTERCLOCKWISE

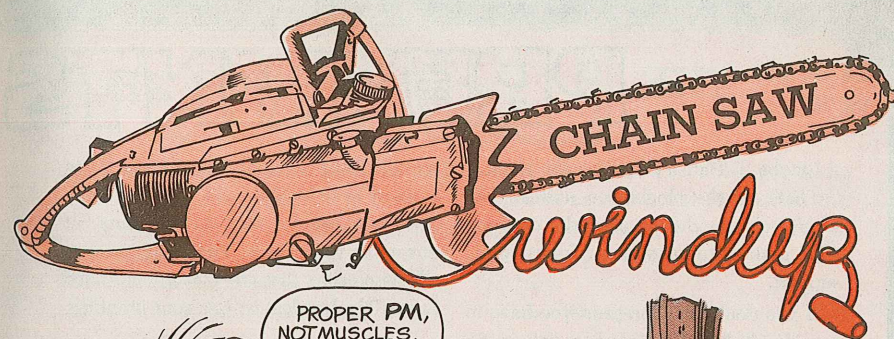


Take out the pipe plug, all the cap-screws and lockwashers. Put in a new gasket and tighten capscrews to 10-12 lb-ft torque. The drain plug gets 35-40 lb-ft torque.

This'll put the oil pan drain plug within easy reach, and the oil will drain free. No muss, no fuss.

You won't have any busted knuckles or scraped elbows reaching for the out-of-the-way drain plug. Your crane's under-carriage components won't be splashed and damaged by oil. And you won't get drenched yourself.

So, make that move at your next oil change.



PROPER PM,  
NOT MUSCLES,  
IS WHAT'S  
NEEDED!



Easy does it with your chain saw starter handle. Yanking it like you're mad at it will only bust the cord or give you a pain in the neck.

Pull it with a short, sharp pull (about 2 feet). This should do it.

If the engine doesn't start after several short pulls, figure that you've got a special problem.

Lots of times the carb's diaphragm goes bad and needs to be replaced.

Then, too, it could be dirt in the carb's air filter, a bad adjustment or water in the fuel.

Whatever it is, troubleshooting—not pulling at it—will do the trick.

## DROP FROM 750 TO 43

New basic-series numbers are coming for equipment publications on general maintenance subjects.

The new basic-series number drops from 750 to 43 (750 will continue to be used for administrative type pubs).

TM's and TB's that get the new number 43 are those covering equipment data sheets, destruction to prevent enemy use, EIR and maintenance digests, expenditure limits and others covering general maintenance subjects.



USE 'EM, MAN,  
USE 'EM . . .

# THE PREPRINTS

Maybe 3. Half a dozen at the most.

That's all the blocks you normally fill when you use the preprinted DA Form 2765 request forms you get from supply support.

If you don't use a preprint you have to provide all the info needed to make out a

request from scratch. That means filling as many as 13 blocks.

So, you can see that the preprints cut down on your work. They also prevent all those errors that creep into hand-filled forms. The big deal is: *Use your preprints.*

SEE AR 710-2,  
CHI, FOR THE  
CODES YOU  
NEED.

RECURRING  
DEMAND

ORGANI-  
ZATION  
DOCUMENT  
NUMBER

PRIORITY  
CODE

ADVICE  
CODE. YOUR  
SPECIAL  
INSTRUCTIONS  
TO SUPPORT,  
IF NEEDED  
(APP F)

UNIT'S  
IDENTIFI-  
CATION  
NUMBER

FSN

UNIT  
OF ISSUE

QUANTITY  
REQUESTED

NOMEN-  
CLATURE

PUBLI-  
CATIONS  
LISTING  
ITEM

COST DETAIL  
ACCOUNT INFO  
(IF REQUIRED  
LOCALLY)  
IN BLOCK 1

A NORS REQUEST  
ALSO TAKES THE  
WEAPON'S SYSTEM CODE  
IN BLOCK 18 (APP H)

ON A NORS (NOT  
OPERATIONALLY READY SUPPLY)  
ADD A G IN BLOCK 12

THE HARD WAY . . .

Entries needed when preprints not used

The machine-prepared cards always have the latest, most accurate info available on an item. That means your request is less likely to get bounced due to bad info. Your supplies are bound to come in

faster when you use a preprint.

The preprints, you see, also do a lot for your support outfit. For example, support can feed your preprinted request into their magic-like supply machines and

WORK FOR

# YOU

What does a preprint look like and when do you rate one?

A preprint is just a regular DA Form 2765 that's shot full of holes and loaded with routine identification info needed to issue an item. Support will normally pro-

vide 2 preprinted DA Form 2765's for each item on your initial PLL. After that, support will give you a fresh preprint each time you send in a request for a PLL item.

With a preprint, over half of your work is done on a request. Take a look.

ON A NORS  
REQUEST YOU ALSO  
FILL BLOCKS 12 AND 18.

ORGANI-  
ZATION  
DOCUMENT  
NUMBER

PRIORITY  
CODE

AND YOU GIVE  
SUPPORT SPECIAL  
INSTRUCTIONS  
IN BLOCK 22  
(IF NEEDED).

QUANTITY  
REQUESTED

On a preprint you fill:  
Block C1 — Your organization document number.  
Block I — Quantity needed.  
Block 13 — R for recurring demands.  
Block 20 — Priority Code.  
Block 22 — Advice code. Only if you want to give support special info on your request.

THE EASY WAY . . .

Preprint Entries

presto—quicker'n you can yell WOW—come up with complete stockage info on the item you're requesting. They can tell on the spot if they can fill your request, or only part of it, if there's been info

change (FSN, unit of issue, substitute scoop, etc.), plus other important stockage info on the item.

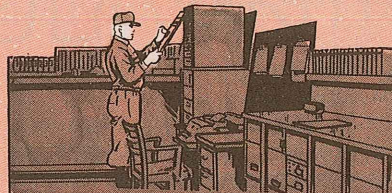
And, right then and there, the machine also preprints a new request so you'll use it next time you need the item.



## YOU'RE THE KEEPER

The big thing you have to remember is that preprints are definitely Neatnicks. The machines won't tolerate messed-up, beat-up preprints. So, to do you (or support) any good, you have to make sure the preprints always stay good as new.

That's no sweat, though. 'Cause as soon's you get a preprint you can stash it in your visible index file . . . along with the DA Form 3318 (Record of Demands card) it covers. That'll keep it safe and



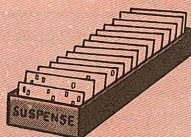
**PUT PREPRINTS IN VISIBLE INDEX FILE  
WITH DA FORM 3318'S FOR SAFEKEEPING**

clean, and it'll also be handy . . . so's you won't forget to use it next time you have to order the part.

## HOLD ONE....

DA Form 2765's are also used to tell you what's what on high priority requests (Priority Designator 01-08) support owes you. Those cards are also holey and have preprinted info, but they're called supply status cards. So, take care you don't mix

your preprints with your status cards and vice versa.

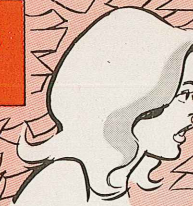


HERE'S  
HOW YOU  
CAN TELL  
'EM  
APART  
IN A  
FLASH!

1. On a preprinted DA Form 2765 the document identifier code (columns 1-3) is always AOA.
2. On supply status cards the document identifier code will always be something other than AOA. See App 1, Ch 1 to AR 710-2.

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## Connie's Mini Minis



CONNIE, I  
GOTTA PROBLEM!

I TRIPPED!



## Facts On Crash Facts

When you're sending a crash facts message and an engine foul-up is a factor, be sure to include the basic facts. That includes—the engine serial number, total number of hours on the engine, number of hours since the last engine overhaul and the place where it was overhauled. To help with detective work on a series of engines, take a gander at AR 95-5, para 14-1b(14), or AR 385-40, para 4-2e (14).

## 180-Not 90

On your second 90-day review of the non-stockage-list item file (DA 3318), you toss out those that have had no demands in the past 180 days (or 360 for USAR)—not 90 days as stated on page 46 of PS 254. See para 2-42b, Ch 1, AR 710-2.

On page 48 of the same issue there's also a change to UND B for initial stockage. (Use Urgency of Need Designator B to replace all PLL stocks at zero balance—including both initial PLL and last-item-from-bin replacements.)

## Spare Tire Missing?

Did you get a Truck, Ambulance Conversion, IHC Model 1210—without a spare tire? Those ambulances bought under Item 0001 of Contract No. DAAE 07-72-C-0177 missed out. So just order yours through regular supply channels—Tire w/flap, FSN 2610-540-4719, and Tube, FSN 2610-051-9266.

## Mud Flaps For Dumps

Do you need new splash guards for your 5-ton dump truck? You make 'em out of a 24-by-36-in piece that comes under FSN 2540-860-0575.

## Hand In Hand

It takes both the fuel sampling kit, FSN 6665-496-9623, and the micro force disk, FSN 6640-436-9920, to make your 30-day filter/separator tests required by para 6-17 of AR 703-1 (Jan 71). After the test, let the small disk dry and mail it to your POL representative in any standard envelope.

## M11 Decon Mount



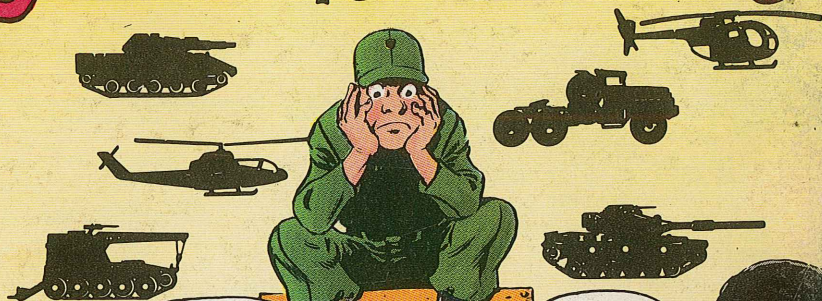
Hold it! You got a bum steer in PS 254, page 11, on mounting the M11 portable decon in the M151 1/4-ton utility truck and ambulance. Your fire extinguisher goes on the front slant of the left fender well. The M11 decon mounts vertically to the left fender well and to the floor, just around the corner from the fire extinguisher. You need 2 drawings—No. 11644842 to pinpoint the location and No. 11644841 for fabrication of the support. Request these drawings from: Commander, US Army Tank-Automotive Command, ATTN: AMSTA-RS, Warren, MI 48090.

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



# STUFF NOT UP TO SNUFF?



DO SOMETHING  
ABOUT IT...

FIRE OFF  
THESE  
FORMS!

