
Issue 279
P.S
February
1976
THE PREVENTIVE MAINTENANCE MONTHLY
?
NAAAH-- LEE AIN'T BEEN DRINKIN'! CONNIE AN' BONNIE JUST CHECKED OUT HIS MAINTENANCE WORK...
AN' GAVE HIM THEIR SEALS OF APPROVAL!
PRIVATE LEE IS ALL RII-IIGHT, CONNIE!
YOU KNOW IT, BONNIE! HE PROVES: "IF YA GOTTA DO IT, DO IT RIGHT!"
MURPHY ANDERSON
See Page 29

THE ABC's OF UND's

Some things are as simple as ABC . . . and then again, some things aren't.

Take urgency-of-need designators (UND's) for example. A headache, right? Wrong. Not if you keep straight on your ABC's.

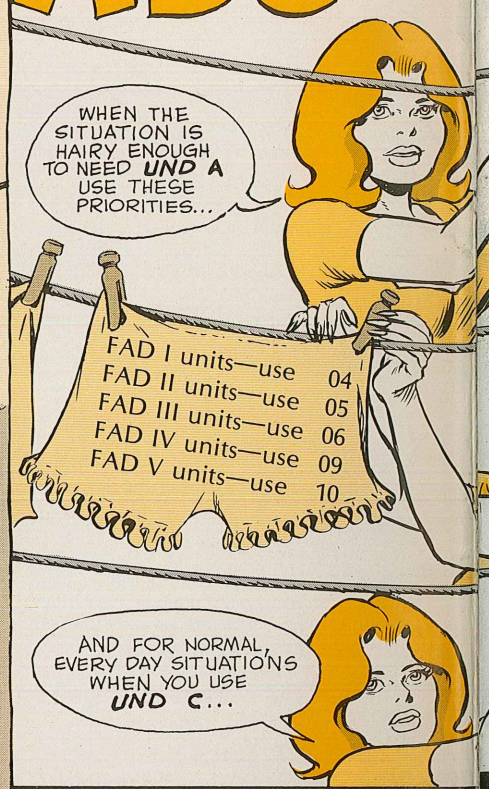
You use UND A only when the world's rocking on the edge and there's no way you can save it without a certain item or part. Your mission is definitely no-go without the item.

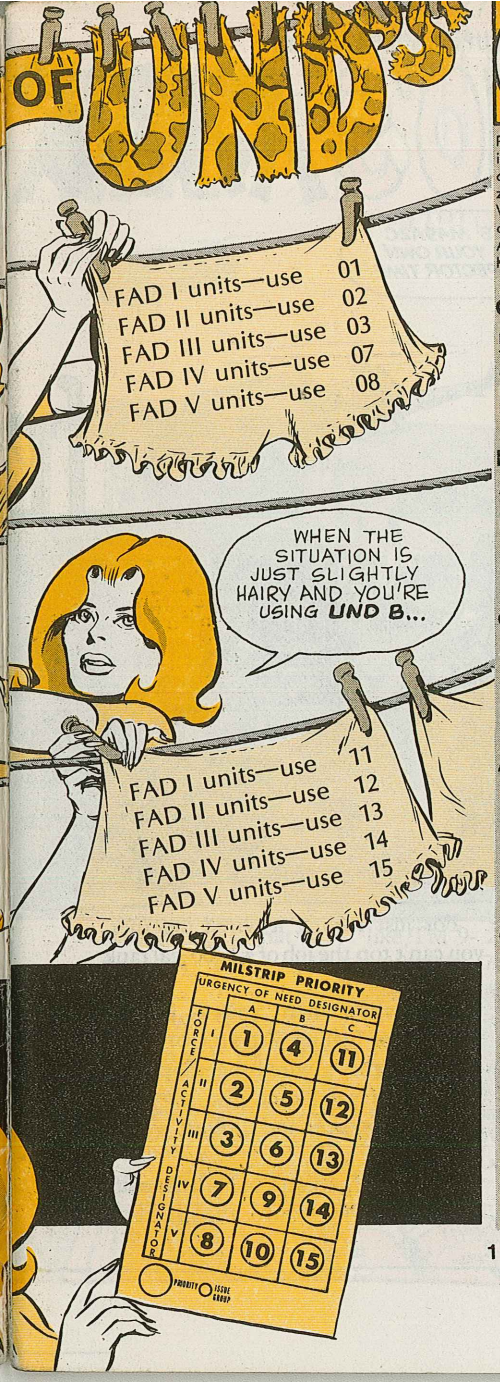
You use UND B when you can haul the world back from the edge but you can't stop the rocking without the item you're requesting.

Everything else comes under UND C.

OK, now you're straight on the ABC's of UND's.

But there's more to the supply alphabet than ABC. You need to know FAD, Force/Activity Designators, and PD, Priority Designators. Then, filling in the details on a supply request becomes a snap.





PS THE PREVENTIVE MAINTENANCE MONTHLY

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GROUND MOBILITY

YOUR M49A2C SUPERTANKER AND YOU . . .

WHO'S KNOC KING SUCCESS?

For just having it wired together, you can't top the job of a 1200-gal tank truck operator.

Especially when you're in the business of fueling aircraft.

About that "wired-together" bit. You know you don't just go jump behind the wheel and tool off with a load of fuel.

No way. You gotta put a little self-propelled OJT with the reading

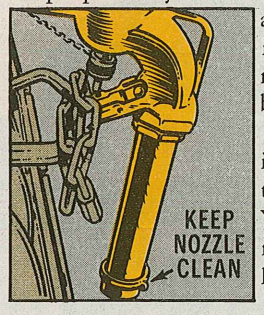
matter, books, that is . . . like TM 9- 2320-209-10 (Feb 65), TM 10-1113 (Jun 69), TM 5-4930-226-12 (Nov 74), or TM 10-1101 (May 72).

So-o-o-o, OJT . . . homework . . . experience—and delivering clean fuel becomes a way of life for you.

Clean, in POL, means without water, without dirt, without algae . . . no foreign matter, period. Just a little water, grit, or green algae in aircraft fuel is too much.

And don't overlook dirty fuel-handling equipment.

F'rinstance, keep that nozzle clean enough that it'll look fairly new even after several months' use. Some people may kick their equipment around . . . drop it . . . drag it . . . run over it . . . but not you.



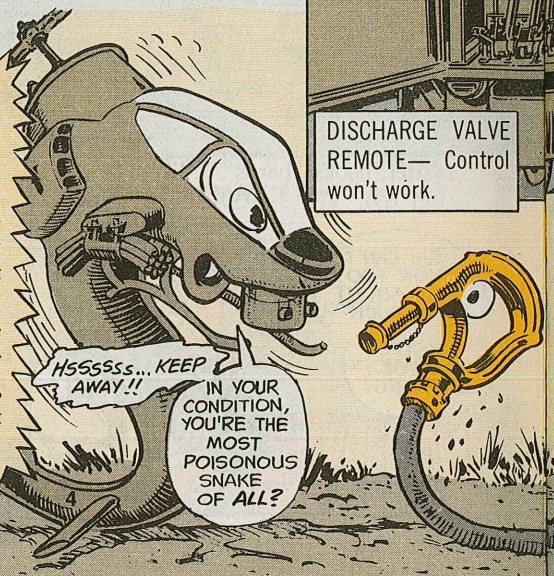
You make a mental checklist of the items you use every day, and run thru them before you take your rig out. You'll know before you go that your rig and equipment's ready. Here's a list of every-session items to check:

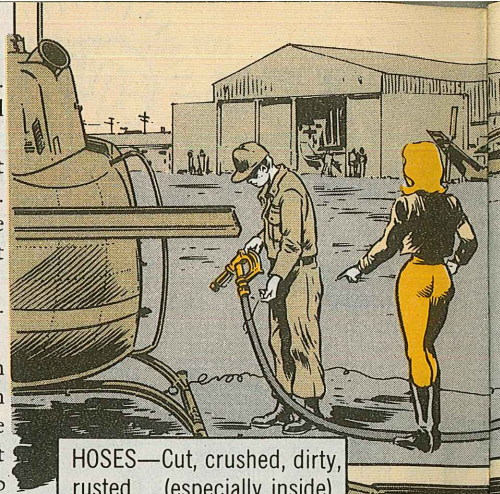
HALF SAFE-NO SAFE

There is no such thing as being "almost" grounded right.

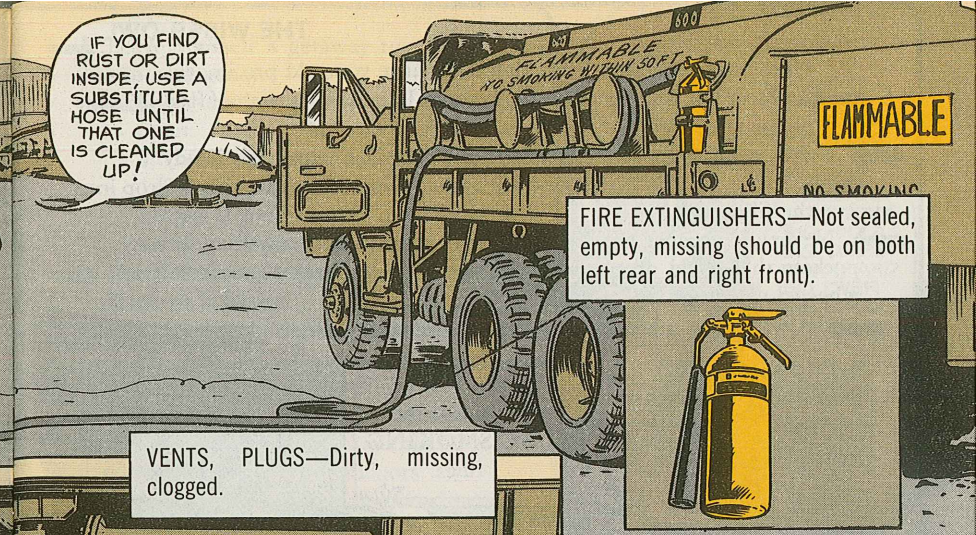
Your ground plug, alligator clips, cables, in-place rods, and link straps are all there for one purpose—to help get rid of static electricity harmlessly.

One spark can ruin your whole day. Your bonding job, and your job of grounding what you bond, have to be R-r-r-right. Almost won't hack it.



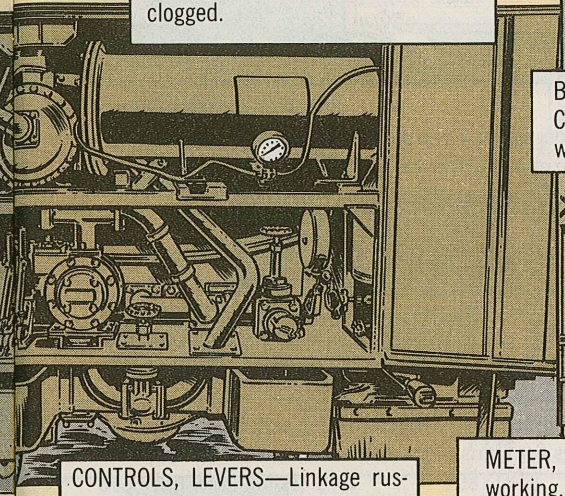


HOSES—Cut, crushed, dirty, rusted (especially inside). Reinforcing wire broken thru inner wall.

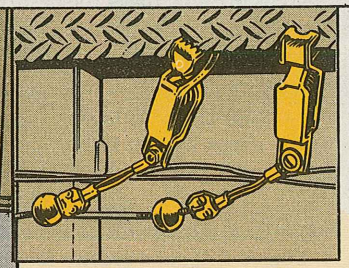


FIRE EXTINGUISHERS—Not sealed, empty, missing (should be on both left rear and right front).

VENTS, PLUGS—Dirty, missing, clogged.

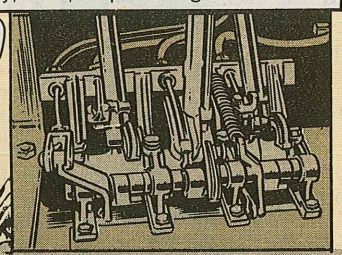


BONDING/GROUNDING CABLE—Clips gone, wires broken, return reel won't work.

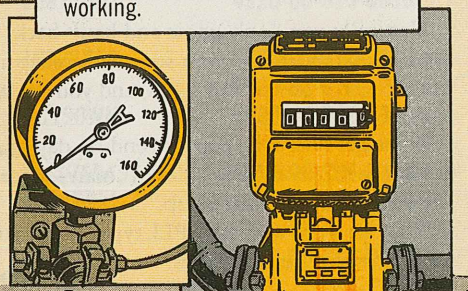


DISCHARGE VALVE REMOTE— Control won't work.

CONTROLS, LEVERS—Linkage rusty, bent; stops damaged.



METER, GAGES—Unreadable, not working.

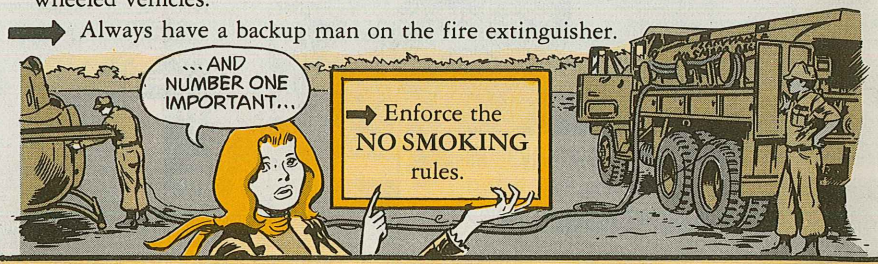


PS MORE

THE WISER OWL

Here are some other hints that'll enhance your old pro image:

- Never use tools that can cause sparks. Use explosion-proof flashlights at night.
- Never work in fuel-wet clothes. Tip—keep spare coveralls handy.
- In wet or icy weather, use wing mats. Never let rain or snow drop into the filler well.
- Never carry paper clips, pencils, pens, note pads or anything in your pockets that could drop into tanks, openings or intakes on aircraft or wheeled vehicles.
- Always have a backup man on the fire extinguisher.



- Leave yourself a getaway route to use in emergency.
- Never, but never block a nozzle open: hold it in your hand. Item 5, inside the front cover of TM 10-1101, says you must **not** use a notched nozzle. If you have one use a hacksaw or file to remove the notches.
- If you do cause a spill, shut down and report it fastest.
- Double check filler caps. Loose caps can become lost caps; lost caps can mean aircraft damaged or destroyed.
- Never fuel aircraft within 300 feet of operating radar rigs . . . within 50 feet of buildings . . . nor indoors.
- Set brakes. When on an incline, use wheel chocks.

AFTER THE BALL

You can't relax and forget it just because you serviced your last customer.

For one thing, that's the best time for your vehicle to get its private PM inspection. A mishap to a POL vehicle can be a blazin' disaster, so don't slight the job.

It's also time for you to get onto your DA Form 2404 with any problems you ran into during the day. If fuel didn't flow quite right . . . dogs on your closed-circuit system fit hard . . . burrs bugged your nozzle handle . . . dust caps wouldn't fit exactly . . . indicator pin action seemed slow . . . whatever it may have been, write it. And while you're looking at the power flow end, whoa up a minute and make a note—

You've still got a gravity-feed system, and that's to be checked over too.

Then you eyeball three things for signs of trouble at the end of the day:

ACTUATING RING—Any sign at all of trouble.

GRAVITY FILL ADAPTER—Cracks in housing, caps, or elsewhere.

STRAINER—Any jams, or holes not put there when manufactured.

Naturally you don't panic and haul back to the rack if, early next morning, you see a small seep at a joint. But you do get it on the DA 2404, and you do tell your shop chief about it.

If you get back early enough, end-of-day is a good time to look in on your PLL desk man—once a week anyway—for the latest poop.

You can work with your PLL type to add stock numbers for your rig to his card files.

ITEM	P/N	NSN
Coupling ring, metal, 2-in for discharge hose	10871852	4320-00-825-0616
Seal, 2-in for above	10871869	5330-00-978-9575
Fuse assy		4930-00-872-1779
Clip, plug, and cable assy grounding, for M49-series	HC190WM	4930-00-842-5315
Alligator clips, grounding	25C(76545)	5999-00-204-8350
Cock, plug, 3-way threaded type	MS-35932-2	4820-00-639-9224
Hose and nozzle assy	10872250	4930-00-563-4917

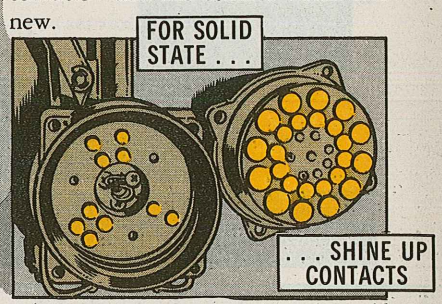
PS END

TURN SIGNAL TIP

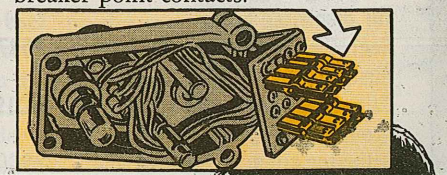
Whoa! Instead of tossin' out that turn signal control, take a crack at putting it back into operation.

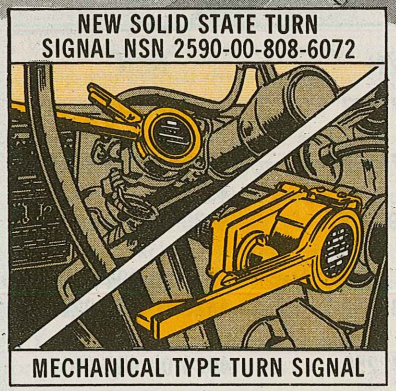
You've got nothing to lose by trying. The TM says this control can't be repaired when it quits. You're s'posed to get a new one—NSN 2590-00-808-6072—to the tune of about 10 bucks.

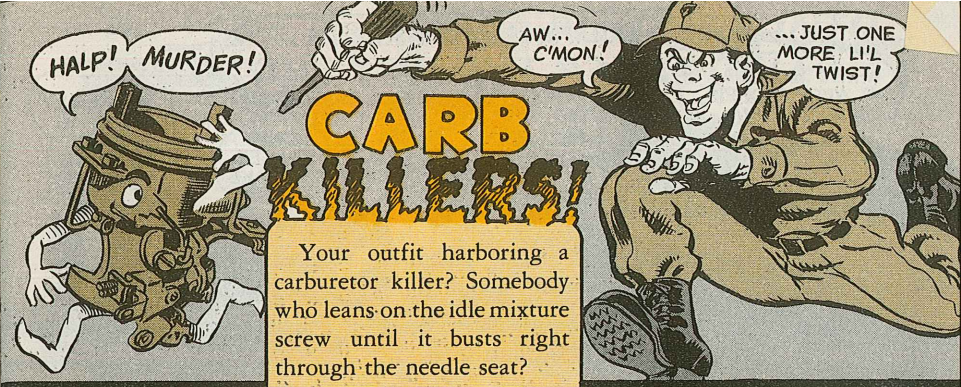
This works almost every time for the solid state turn signal control. Just shine up all those little button-like contacts—and the control works like new.



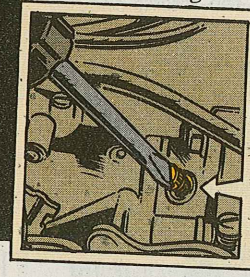
It's not so easy with the old mechanical-type control—with the breaker point contacts.







Just drop into your DSU shop and see the carbs that're headed for the junk pile only because the mixture screw needle seat is busted out. There's no repair of this damage—the carb's shot.



THIS SCREW IS FOR THE AIR-GAS MIXTURE ONLY AT IDLE AND VERY LOW SPEED. IF IDLING IS TOO FAST, SET THE IDLE SPEED LIKE YOUR TM SAYS— AND THEN ADJUST THE MIXING SCREW.

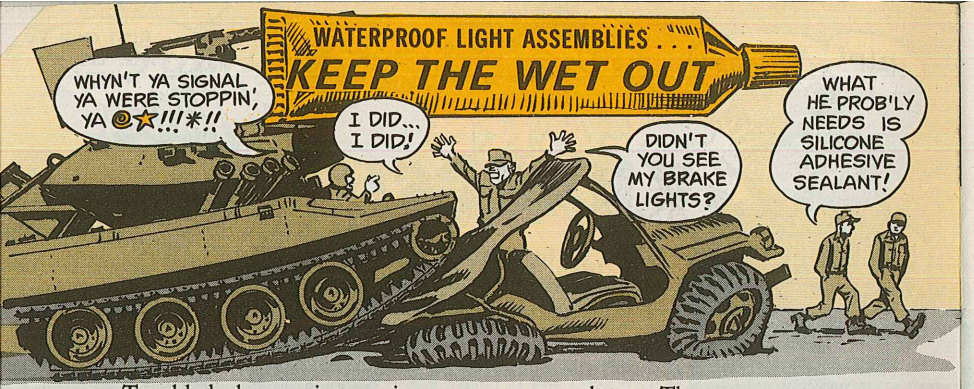
TURNING THE SCREW IN (CLOCKWISE) MAKES A LEANER MIXTURE- MORE AIR, LESS GAS. TURNING IT OUT MAKES A RICHER MIXTURE.

When you turn the mixture screw in all the way, it should only touch—repeat TOUCH—the needle seat. Metal at the needle seat hole is thin—and brittle.

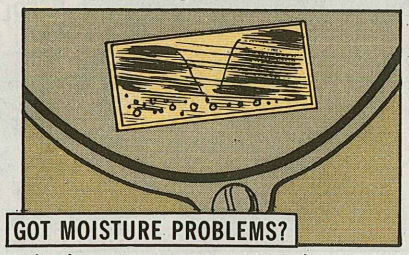
You can tell when the screw touches the end if you're careful.

Easy does it. When the screw stops, you stop turning.

Then you adjust the mixture screw like it says in your vehicle TM.



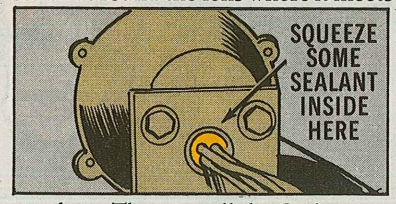
Troubled by moisture in your "waterproof" light assemblies? Have



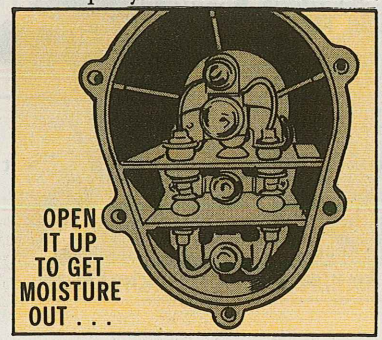
you just about given up trying to get them sealed? Here's help!

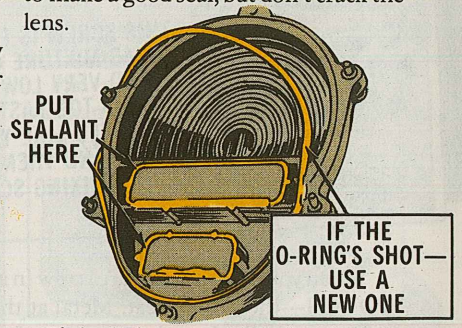
Use silicone adhesive sealant—NSN 8040-00-833-9563 for a 5-oz tube—to fill up the openings in the assembly.

Open up the light and mop up any moisture that's in there. A shot of air will help dry out some of the hard-to-get-at places. Then squeeze some sealant into the opening where the electric wires come in. Put some sealant around the lens where it meets



the door. Then install the O-ring (use a new one if the old one's stretched or mashed). When you close the assembly, tighten the screws enough to make a good seal, but don't crack the lens.



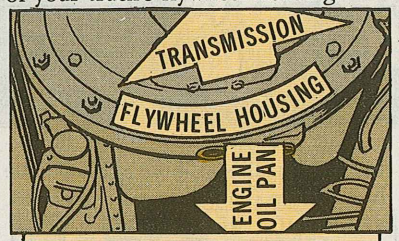


If the light assembly's already rusty inside, sand and spot paint it to keep the rust from spreading.

PLUGGED INTO TROUBLE?

Take a look—right now.

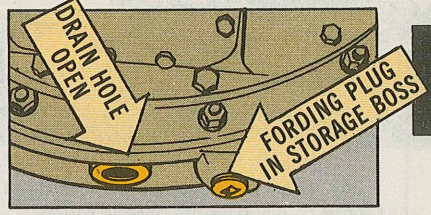
Is the fording plug in the drain hole of your truck's flywheel housing?



THE FLYWHEEL HOUSING IS BETWEEN THE BACK OF THE ENGINE AND THE FRONT OF THE TRANSMISSION. THE DRAIN HOLE IS AT THE BOTTOM OF THE FLYWHEEL HOUSING.

If so, you're begging for trouble—like a slipping clutch. Or even a ruined clutch.

Take that plug out—unless you'll be fording. Screw the plug into the



storage boss alongside the flywheel housing. Or, if there's no storage boss, keep the plug in your truck's glove box or tool box.

Why the big fuss? A little leakage of engine and transmission lube into the fly-wheel housing is normal. And it's no big problem if it can drain out. But it can't drain out if the hole's plugged. It can build up in there until it gets on the clutch.

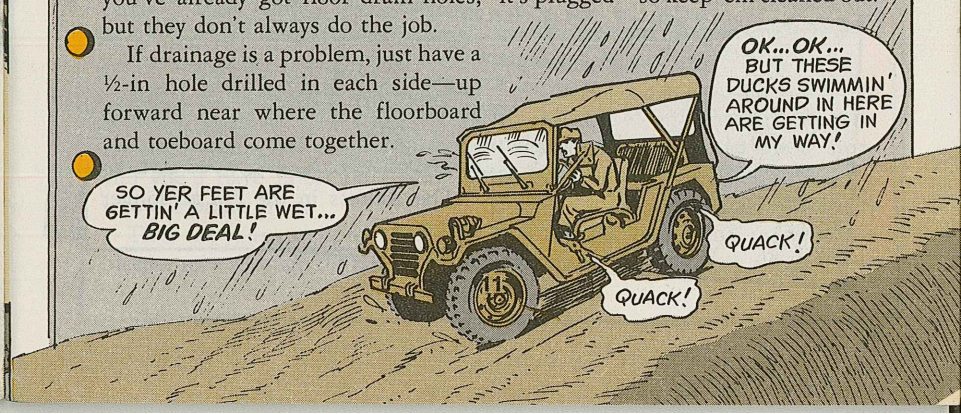
DRILL DRAIN HOLES

No need to park nose-uphill to drain water sittin' in your M151A2 or other TM-218-series ¼-tonner. Sure, you've already got floor drain holes, but they don't always do the job.

If drainage is a problem, just have a ½-in hole drilled in each side—up forward near where the floorboard and toeboard come together.

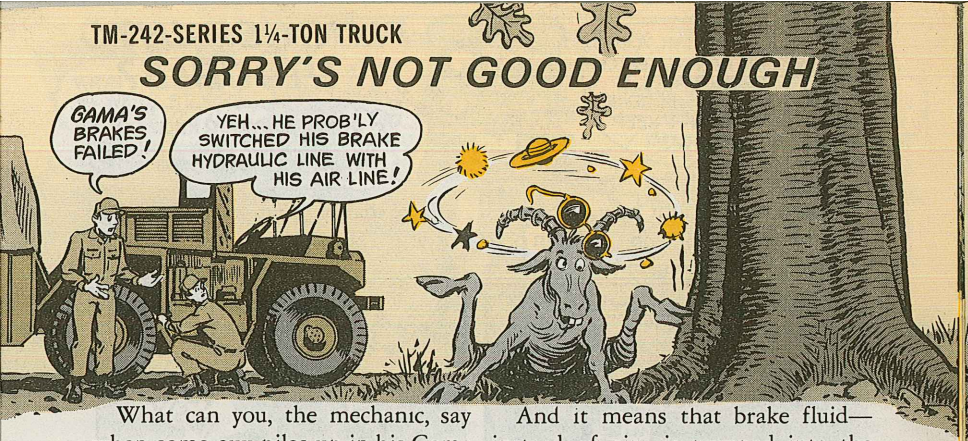
All of the details are in TB 43-0001-39-3 (Oct 75).

Natch, a drain hole won't drain if it's plugged—so keep 'em cleaned out.



TM-242-SERIES 1¼-TON TRUCK

SORRY'S NOT GOOD ENOUGH



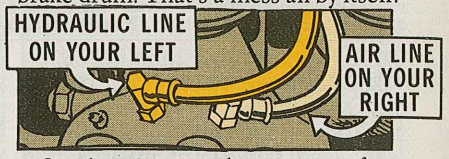
What can you, the mechanic, say when some guy piles up in his Gama Goat . . . because his brakes failed . . . because you switched the brake hydraulic line and air line to the wheel?

It can happen. It does happen!

You have both lines unhooked at the spindle. The hookups are threaded the same—so they get switched when you put 'em back on.

This means that air—instead of brake fluid—goes to the wheel brake cylinder. The brakes don't work on air.

And it means that brake fluid—instead of air—is pumped into the brake drum. That's a mess all by itself.



So always remember—as you face the wheel, the brake hydraulic line is on your left—and the air line is on your right. Tag them as such before you take 'em off.

You won't be sorry.

ADDRESSING THE CLASS

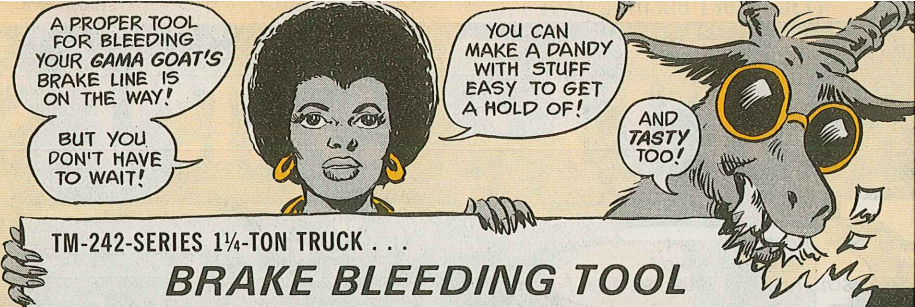
If you need to know your vehicle's load class, and it's not listed in FM 5-36, get the info from:

POSTAGE AND FEES PAID
DEPARTMENT OF THE ARMY
DoD-314

U.S. MAIL

Commandant
US Army Engineer School
ATTN: ATSE-CTD-DT-TL
Fort Belvoir, VA 22060

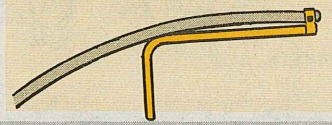
The address in the FM no longer exists.



TM-242-SERIES 1¼-TON TRUCK . . .

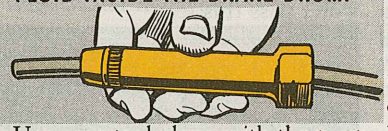
BRAKE BLEEDING TOOL

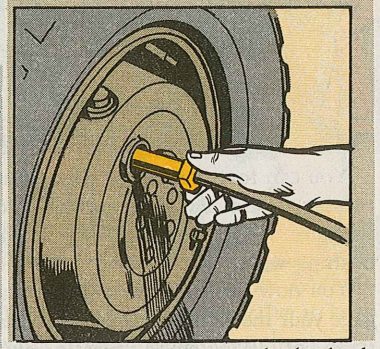
THIS ONE'S MADE FROM THE HEX END OF A ¼-IN DRIVE 7/16-IN SOCKET WRENCH BRAZED TO THE HANDLE PART OF A CROW'S FOOT WRENCH, OR ANY STRONG ROD BENT TO AN L-SHAPE WILL DO FOR A HANDLE.



HERE'S A T-HANDLE JOB MADE FROM A SOCKET WRENCH, ANGLE IRON AND A HUNK O'ROD—ALL BRAZED TOGETHER.

BOTH LOOSENING THE BLEED SCREW AND DOING THE BLEEDING IS POSSIBLE WITH THIS ONE—A SOCKET WRENCH, PIECE OF PIPE AND A BIG NUT BRAZED TOGETHER. IT TAKES ANOTHER WRENCH TO TURN IT. WITH THIS ONE, THERE'S LESS CHANCE OF THE TUBE FALLING OFF THE BLEED SCREW AND SPILLING FLUID INSIDE THE BRAKE DRUM.





Use your tool along with the poop in TM 9-2320-242-20 (Aug 70), pages 2-230 and 2-231, para 2-161b.

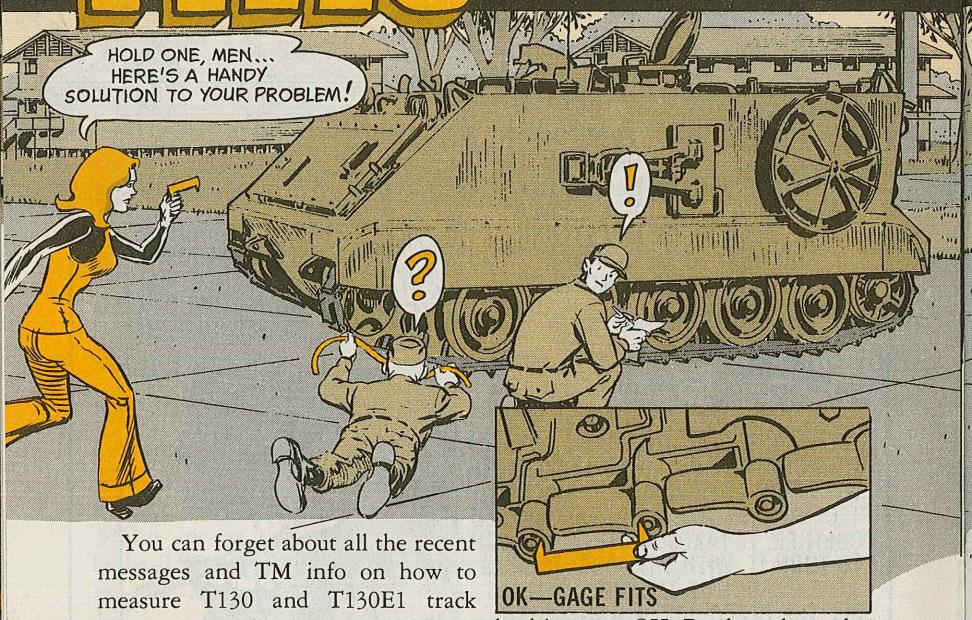
Use a ⅜-in or ½-in drive 7/16-in socket to break loose the wheel cylinder bleed screw. Easy! Too much and you'll have brake fluid running into the brake drum.

Then use your special tool. Stick the bleeder tube through the hex hole. Put the tool and tube through the brake drum hole and push the tube onto the bleed screw. Push the tool onto the bleed screw and loosen the screw to bleed the brake line.

When you're through bleeding, tighten the bleed screw back up with your tool—until brake fluid stops coming out of the bleeder tube.

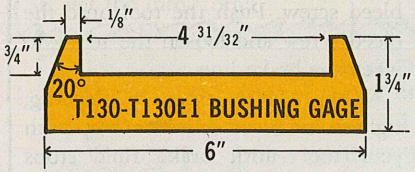
Then use a torque wrench to give the bleed screw its final tightening—150-180 lb-in torque on the screw.

M113-SERIES VEHICLE TRACK



You can forget about all the recent messages and TM info on how to measure T130 and T130E1 track bushing wear.

You now can measure wear with a gage your mechanic can make out of a scrap of ⅛-in stock—plastic, aluminum, steel or whatever.



MAKE FROM ⅛" STOCK

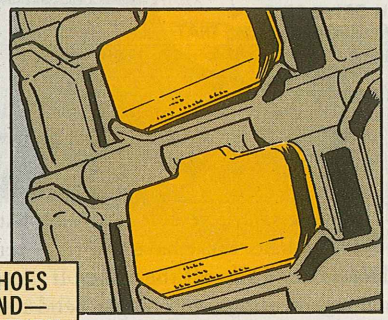
If you can put the gage in the bushing bore from shoe to shoe, the bushings are OK. Replace shoes that won't pass this test.

Use this test for both T130 and T130E1 bushings until a new gage, now being designed, comes out. The new gage will measure both sprocket and bushing wear.

Now about track pads . . .

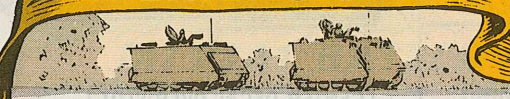
When you use the new T130E1 track pads in old track blocks they make a loose fit and twist around quite a bit when the vehicle is in motion.

You don't have to replace these pads just because they twisted. Check 'em often to see if they're as tight as they should be.



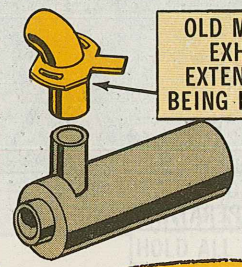
NEW PADS IN OLD SHOES MAY WRIGGLE AROUND—NO SWEAT, JUST CHECK 'EM FOR TIGHTNESS

NEW MUFFLER EXTENSION



With winter here you'll need a new muffler extension. Not for yourself, for your vehicle.

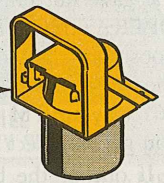
The muffler exhaust extensions, NSN 2990-00-755-4854 and NSN 2990-00-930-2067 are being replaced.



OLD MUFFLER EXHAUST EXTENSION IS BEING REPLACED

The new extension, NSN 2990-00-029-0536, has a flapper valve to keep water from running down the exhaust pipe into the engine.

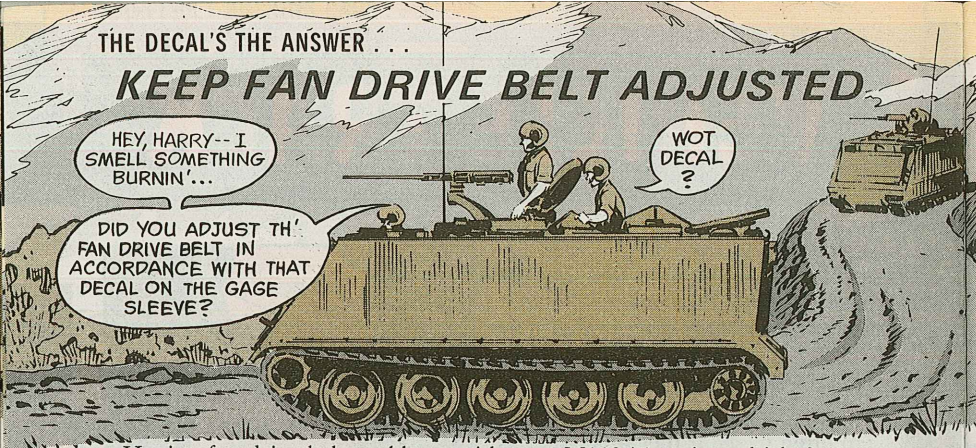
NEW EXTENSION FLAPPER VALVE WILL KEEP WATER OUT OF ENGINE



It'll be listed in a change to the -20P but you don't need to wait. It's already in the Army Master Data File.

THE DECAL'S THE ANSWER . . .

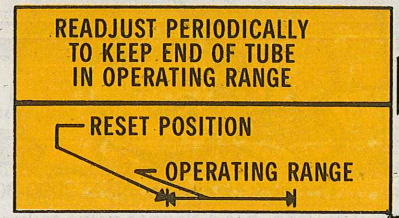
KEEP FAN DRIVE BELT ADJUSTED

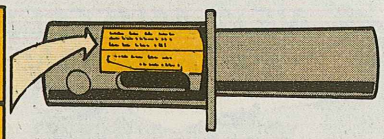


Having fan drive belt problems with your M113A1-series vehicles?

Those belts must have the right tension on the idler pulley. If they're too loose, they'll slip off the pulley. If they're too tight, they'll wear out in a hurry, damage bearings, and maybe bend the pulley arm.

First, see if there's a decal on the gage sleeve. If you need one, it's Decal, idler instructions, NSN 7690-00-403-0942 (P/N 10863404—19207). Put it on so that the operating range is centered between the ends of the slot.

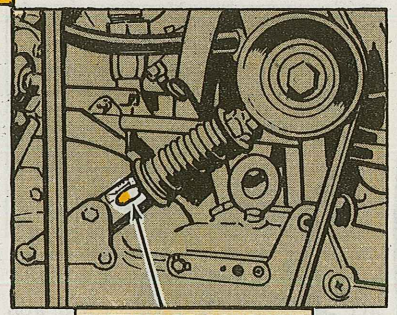




CENTER DECAL OVER SLOT

Check the window in the gage sleeve and see if the bottom edge of the gage nut falls somewhere in the OPERATING RANGE on the decal. Loosen or tighten the fan drive belts the way it says in para 2-94 on page 2-161 of your TM 9-2300-257-20 until you get a correct reading.

If one of the belts is cut or worn smooth, replace both belts. They come as a set, NSN 3030-00-684-1485, belts, V, matched set: 2 per set.



BOTTOM OF GAGE NUT IN OPERATING RANGE

CHANGE OIL TO GREASE—

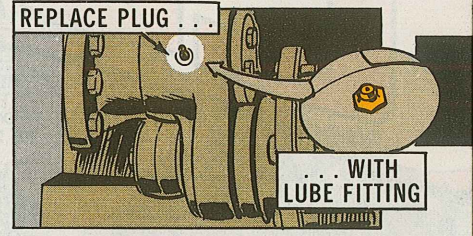
M113A1-SERIES CARRIERS

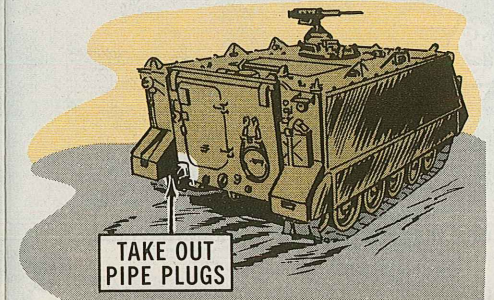
Having problems with your track idler arm housing binding up?

Change 4 (Aug 74) to TM 9-2300-257-20 (Feb 69) is your authority to change it to a different lube—GAA.

You'll find the word in para 2-224.1 on page 2-268 of the C 4.

Take out the 2 pipe plugs from the 2 oil fill openings at the top of the arm assembly. Then replace one with a lube fitting NSN 4730-00-172-0028, and the other with a relief valve NSN 4730-00-542-5683.





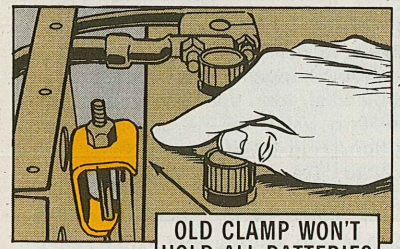
'Course, you'll need a reducer NSN 4730-00-186-3024 with each lube fitting and relief valve so they'll fit the holes.

Fill the housing with GAA through the grease fitting until grease escapes through the relief valve.

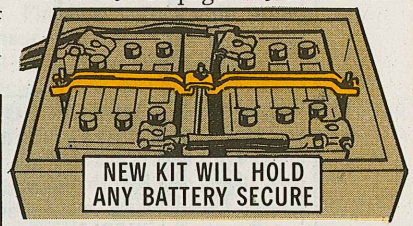
You want to change the idler wheel hub to grease, too.

M113A1 BATTERY BUGABOO

A lot of rope-handled batteries have been getting busted because the old battery retainer clamp, NSN 2540-00-840-9555, (Item 17 on page 2-441 of your TM 9-2300-257-20P) won't hold 'em secure.



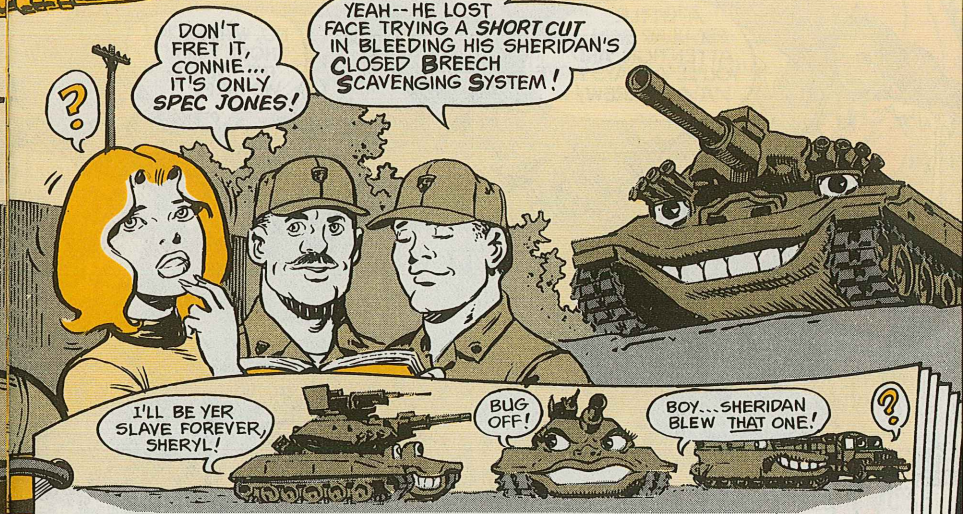
What you need is parts kit, battery retaining, NSN 2510-00-502-5503. It's Item 32 on page 2-73 of the -20P.



With this kit you can hold any NSN 6140-00-057-2554 batteries secure no matter whether they come with rope, plastic or metal handles.

M551 SHERIDAN . . .

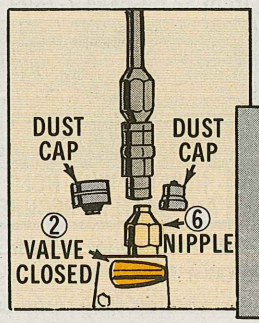
CBSS SLAVING DANGER



Try to crack a fitting on an air line with 3,000-PSI pressure in it and you could lose your face.

That's the dangerous way some people have been relieving trapped pressure in the air hose after slave charging the M551's closed breech scavenging system.

The right way to do it will be published in the next edition of TM 9-2350-230-10/2-1 (Mar 73), but you can start using the right way now.



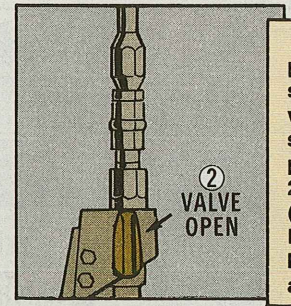
Turn to page 2, (Fig 2-10.1) of C 1 of your TM 9-2350-230-10/2-1 and write this between paragraphs 3 and 4—

NOTE: "Air can get trapped between valve (2) and Nipple (6). If this should happen, open valve (2) and bleed air from the system and then turn valve to the shut-off position." (Fig 4-17.1 on page 6 of C 2 to TM 9-2350-230-10-2-2 shows this.)

With this NOTE, everything will read right on page 2.

Now turn to the next page (page 3) and cross out the NOTE after para 8 and also all of para 9.

Write this in and use it in place of what you have crossed out . . .



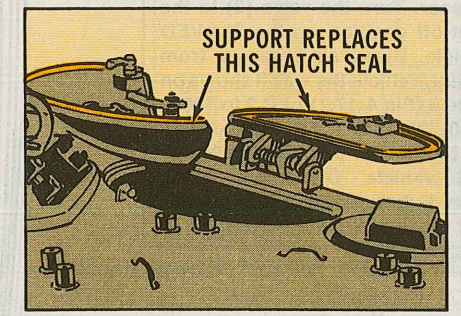
"9. Finished? Turn off compressor. Turn the valve (2) to the shut-off position on the SLAVED vehicle. Bleed air pressure from slaving vehicle the way it shows on page 6 (Fig 4-17.1) of C 2 to TM 9-2350-230-10/2-2. Now turn valve (2) to shut off position on SLAVING vehicle. Disconnect slave hose. Put dust caps on slave hose and nipples. Stow the hose."

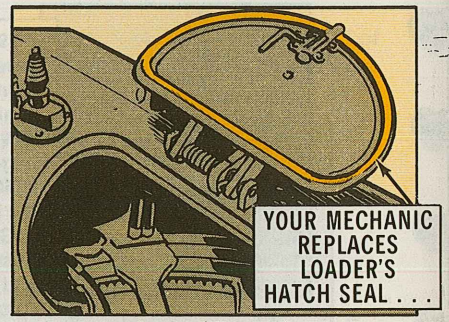
Follow this new way when you slave your CBSS, and you'll have no trouble. This change also applies to TM 9-2350-230-10-2-3.

M551 SHERIDAN

There are a lot of different seals on your M551 Sheridan but, the ones that can let the rain drain down your neck are the seals for the loader's hatch, commander's cupola and driver's hatch.

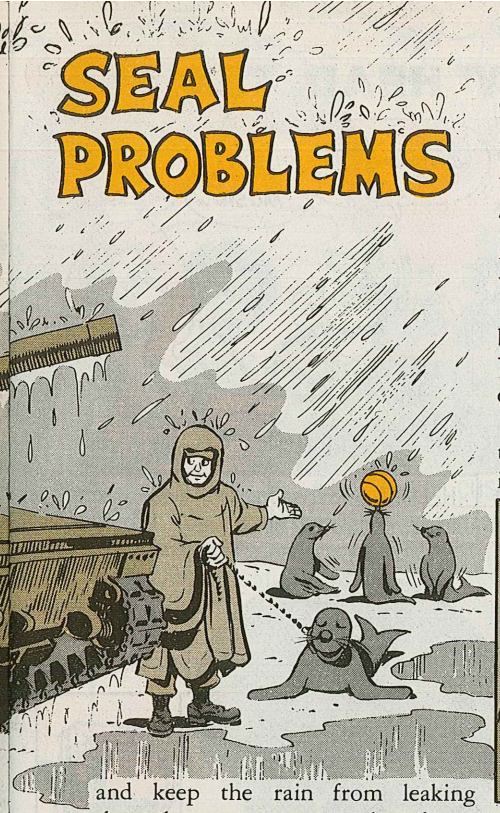
Replacing the seals on the cupola hatch is a job for direct support. But



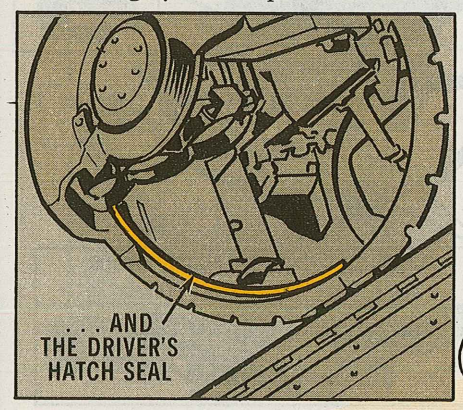


your organizational mechanic can replace loader's or driver's hatch seals

SEAL PROBLEMS



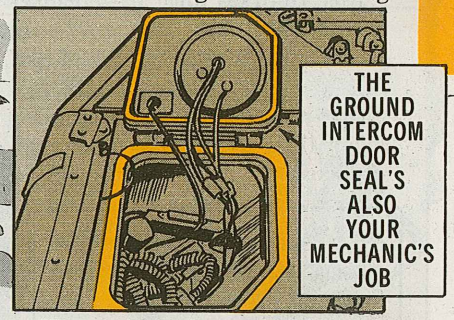
and keep the rain from leaking through your own personal roof.



The loader's seal, NSN 5330-00-907-9041, seal, rubber, special shaped section 10952316 (19207) is listed on page 263 of TM 9-2350-230-25P/2 (Sep 69). Fig 10-44 (page 10-44) of TM 9-2350-230-12 (Jun 66) warns the mechanic to adjust the latch shims when putting in a new seal.

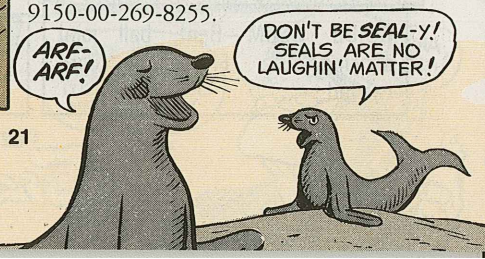
The driver's seal fabricated from bulk seal rubber NSN 2540-00-945-7142, is item 35 in Fig 116(page 107) of TM 9-2350-230-24P/1 (Jun 71).

Getting these seals fixed will keep the rain off the crew—but the ground intercom door might also be leaking.



Your unit mech can take this right in stride. The door needs a seal NSN 2590-00-945-8713, item 13 in Fig 127 of TM 9-2350-230-24P/1 (Jun 71).

Once you've got the seals, keep 'em in good shape. Massage GPS grease into the seals quarterly the way it says in your LO 9-2350-230-12. NSN 9150-00-273-8633 gets you 8 ounces of this good glop or you can order the economical one pound can for NSN 9150-00-269-8255.



NEW DH-132 HELMET . . .

IT'LL SAVE Y' HEAD, TED!

One main pain of the Combat Vehicle Crewman's life is on the way out.

A better helmet—the DH-132—is on the scene.

It'll save your eardrums from unfair wear and tear. It'll let you listen to what goes on the radio and intercom. And it'll shield your skull far better than the older types.

The DH-132 is covered by Ch 3, Chapter 5 (Oct 73) to TM 10-8400-201-23 (Jun 70).

Electronics for it—Headset microphone kit MK-1697—are described in TM 11-5965-286-14 (Jan 74).

Give it an eyeball now and again for any of these conditions—and correct 'em soonest.

HELMET SHELL—Cracked; binding loose, discolored, holed out.

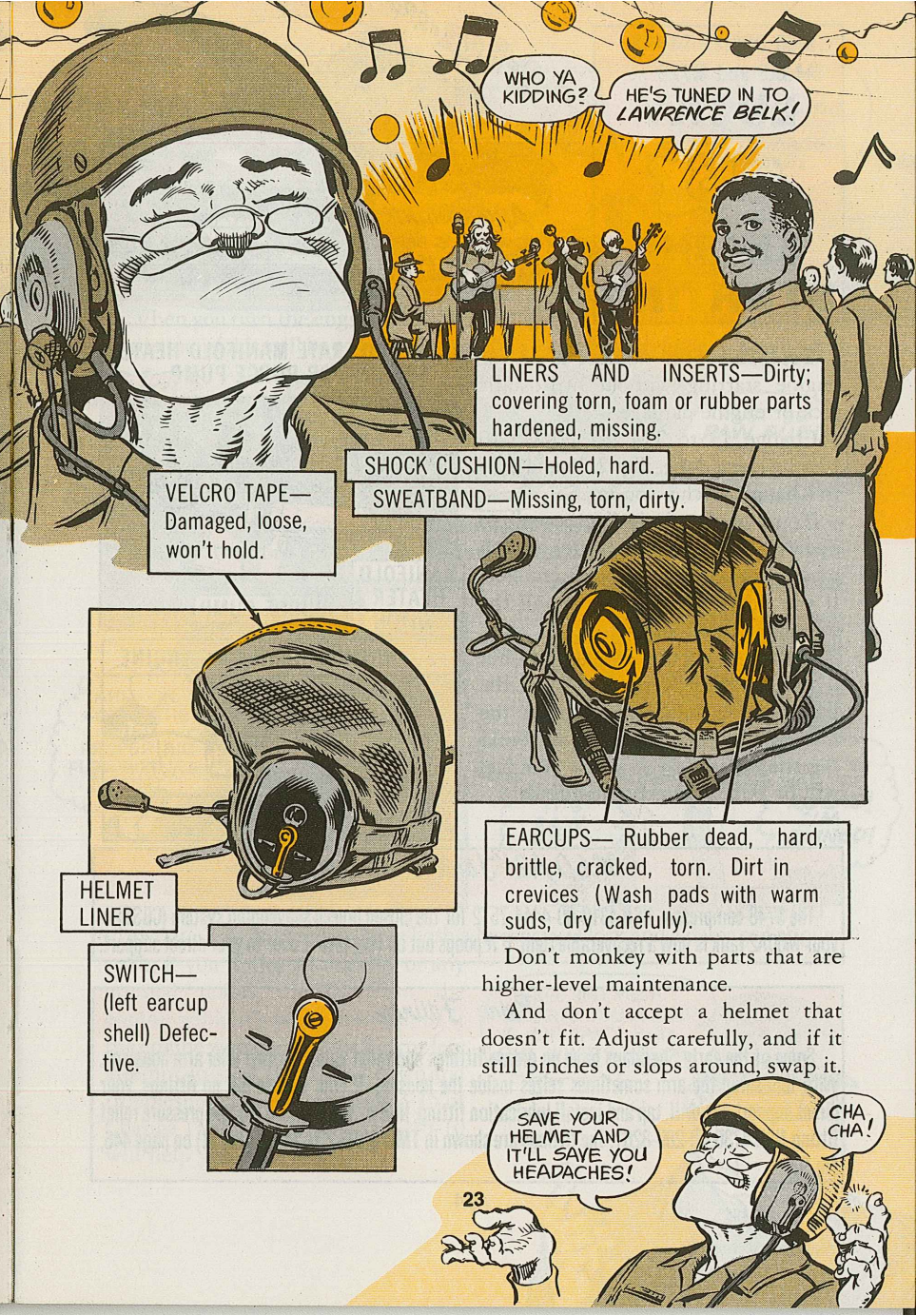
CLOTHING CLIP— broken, won't hold, stuck.

MIKE ADJUSTING KNOB—stuck, missing; snaps loose, stuck, rusted. Straps not tight in eyes.

BAIL-OUT CORD—Line pinched; connectors jammed or loose; wires broken (test it hooked to your vehicular system).

GUIDE BOOM—Bent, ball joint sticking/loose. Frame or cord twisted.

CHIN STRAP, PAD—Dirty, snaps won't hold. Frayed, torn, broken.



LINERS AND INSERTS—Dirty; covering torn, foam or rubber parts hardened, missing.

SHOCK CUSHION—Holed, hard.

SWEATBAND—Missing, torn, dirty.

VELCRO TAPE—Damaged, loose, won't hold.

HELMET LINER

SWITCH—(left earcup shell) Defective.

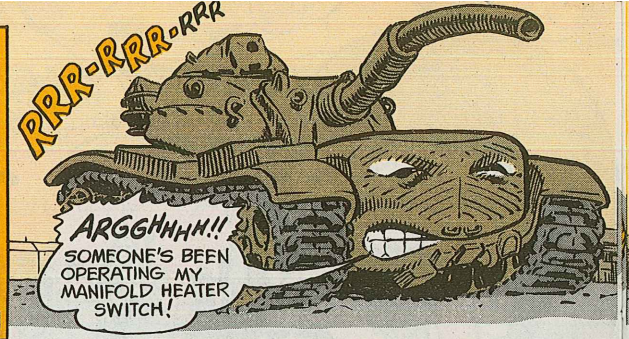
EARCUPS— Rubber dead, hard, brittle, cracked, torn. Dirt in crevices (Wash pads with warm suds, dry carefully).

Don't monkey with parts that are higher-level maintenance.

And don't accept a helmet that doesn't fit. Adjust carefully, and if it still pinches or slops around, swap it.

M60 SERIES TANKS, M48A3 and M728 . . .

LUCKY 13 ENGINE STARTING

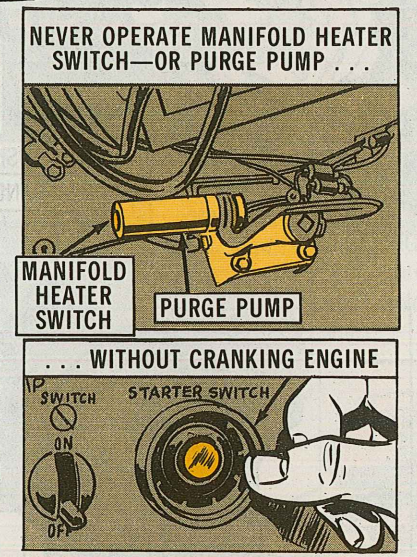


Yep! The lucky number is 13 for engine starting without hydrostatic lock or engine damage.

Change 13 to TM 9-2350-215-10 has the latest dope. Figs 2-15 and 2-16 in Change 13 clue you in.

You'll notice it is "verboten" to operate the manifold heater switch when the engine is not being cranked. If you do this you'll burn up all the oxygen in the manifold.

Burning up all the oxygen is bad, but it's still worse if you also work the purge pump handle as well as the manifold heater switch without cranking the engine. In this case raw fuel will be pulled into the manifolds.

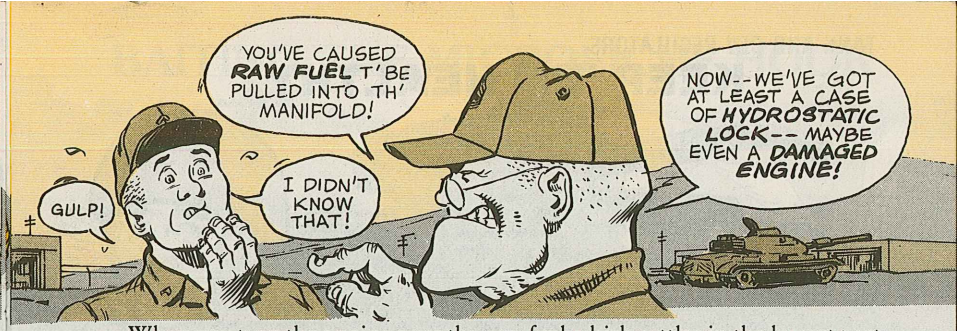


M60A2 Tank Compressor

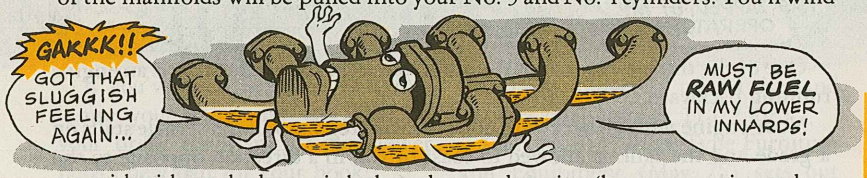
The $748 compressor NSN 4310-00-4444-7572 for the closed breech scavenging system (CBSS) in your M60A2 tank is now a recoverable item. If it poops out on you, turn it over to your direct support.

Retro Fittings

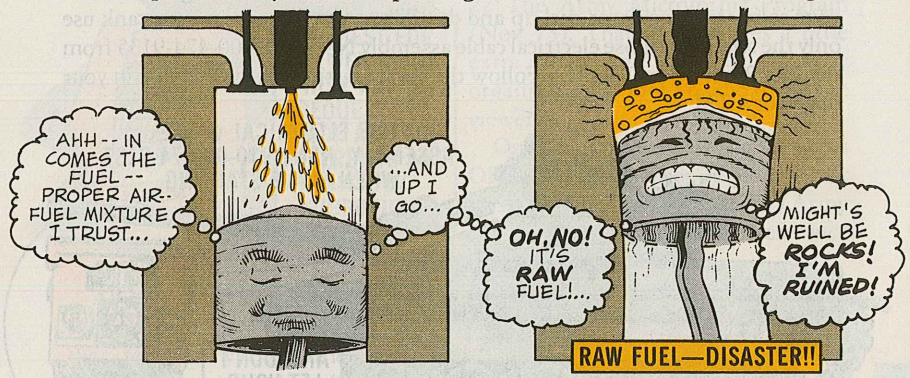
Some of the early Sheridans have no grease fittings and relief valves in their idler arm housings. With this setup the arm sometimes seizes inside the housing. If your vehicle has no fittings, your direct support can drill, tap and install lubrication fitting, NSN 4730-00-050-4208 and pressure relief fitting NSN 4730-00-289-8261. The fittings are shown in TM 9-2350-230-24P/1 (Jun 71) on page 446, Fig 93.



When you turn the engine over the raw fuel which settles in the lowest part of the manifolds will be pulled into your No. 3 and No. 4 cylinders. You'll wind

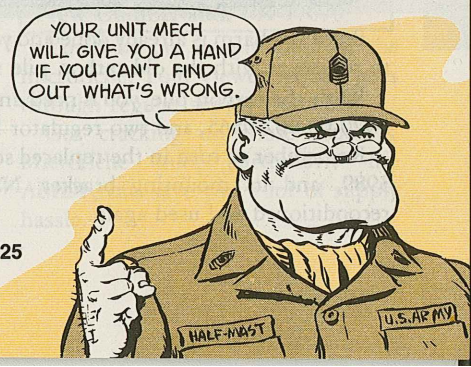


up with either a hydrostatic lock or damaged engine (bent connecting rods or cracked pistons or cylinders) depending on the amount of raw fuel that gets



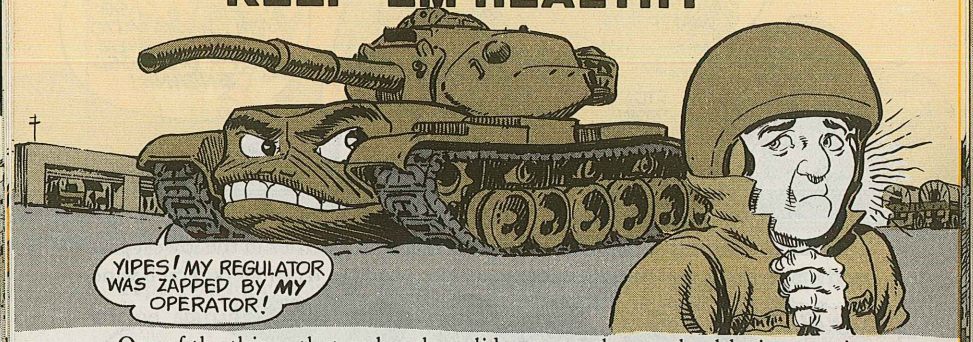
drawn in. You might even have both a hydrostatic lock and a damaged engine.

So, if you notice a knocking or any unusual noises coming from the engine while it's being cranked, or if the engine won't start after 2 complete attempt-to-start cycles, shut down and troubleshoot the engine. Page 3-15 of Change 13 to your TM 9-2350-215-10 will help you with this.



TANK AND CEV REGULATORS . . .

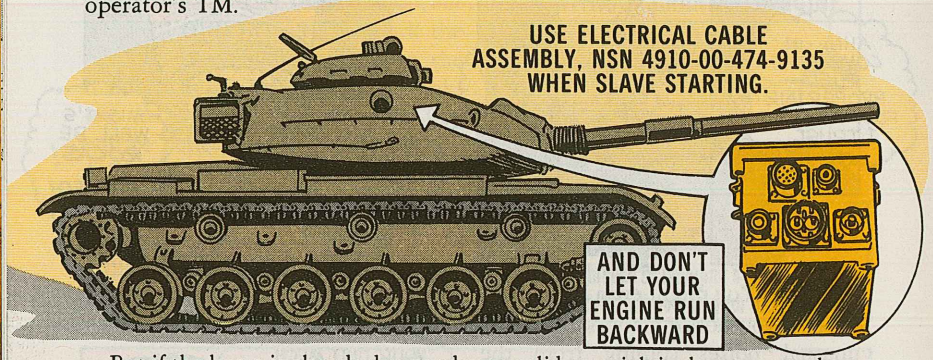
KEEP 'EM HEALTHY



One of the things that makes the solid state regulator unhealthy is an engine running backward.

Your engine will run backward and ruin your regulator if the vehicle stalls on a grade and the tank is allowed to coast or roll in a direction opposite to the direction the transmission selector is set for.

Getting reverse polarity while you slave-start is another thing that makes your solid state regulator curl up and die. When you slave start your tank use only the special purpose electrical cable assembly NSN 4910-00-474-9135 from the No. 2 Common Tool Kit. Follow the slave starting method shown in your operator's TM.

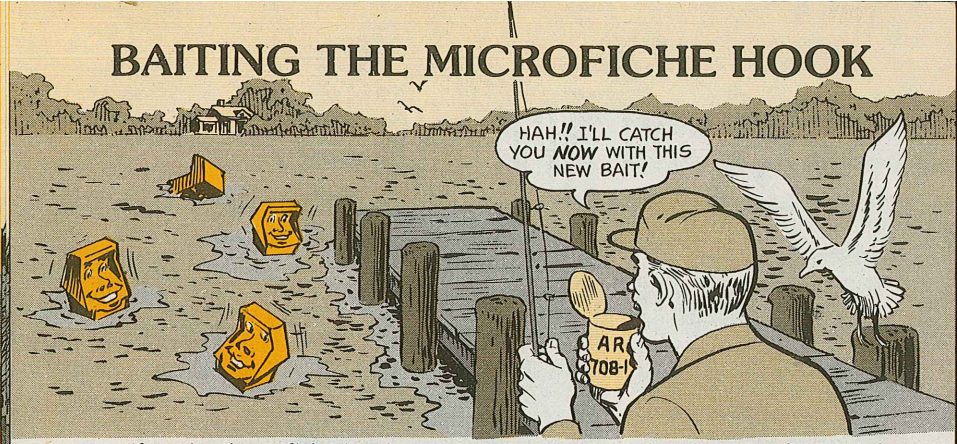


But if the harm is already done and your solid state job is shot, you may have to replace it with the old carbon pile regulator, NSN 2920-00-335-4264.

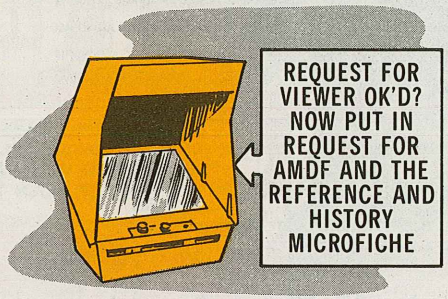
With the carbon pile, you'll need an external voltage regulating box, NSN 2920-00-907-9565, and two regulator brackets, NSN 2990-00-974-2052.

Remember to turn in the replaced solid state regulator, NSN 2920-00-088-3989, and its mounting bracket, NSN 2920-00-088-3981. They can be reconditioned and used again.

BAITING THE MICROFICHE HOOK



If you've been fiche-ing in vain—'cause your command said "No" to your order for a microfiche viewer, here's new bait for your hook!



AR 708-1, Cataloging and Supply Management Data (Dec 70), the reg that governs who's authorized the microfiche, opens the ol' fiche-ing hole to units.

Change 14 (Nov 75) OK's microfiche to company level.

There're some other changes planned for the future, so your best bet is to order Viewer, NSN 6730-00-116-1618.

This viewer has a dual lens for 24X or 48X (the number of times the info has been reduced) microfiche and handles dual voltage, 115/230±5.

CTA 50-913 Office Type Furniture and Equipment (May 75) sets out allowance info and refers to AR 340-22 The Army Microforms Program (Nov 73). That AR requires a little extra work and the OK of your organization's chief honcho to get the viewer.

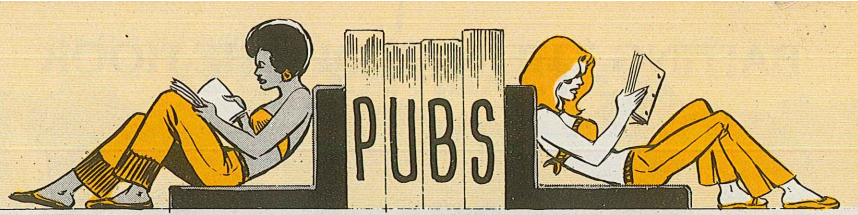
Once your request for the viewer is OK'd, put in another request for at least the monthly AMDF (Army Master Data File) and the reference and history microfiche.

Send your microfiche requests to:

Chief
US Army Catalog Data Agency
ATTN: AMXCA-CP
New Cumberland Army Depot
New Cumberland, PA 17070

You'll be put on pinpoint for the microfiche. Your viewer request goes through regular supply channels.

Get cracking on those requests. Microfiche info, particularly the AMDF, can save you a lot of supply hassle.



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 1 (Feb 75), TM's, TB's, etc.; DA Pam 310-6 (Jul 75), and Ch 1 (Oct 75), SC's and SM's; and DA Pam (C) 310-9 (Aug 74), COMSEC Pubs.

TECHNICAL MANUALS

C1, TM 3-1055-456-12 Sep M202A1 Rocket Launcher
TM 3-4240-279-10 Aug M17/M17A1 Mask
TM 3-6665-225-12 Aug M8-M18 Chemical Agent Alarms
TM 5-1080-200-10 & P Jul Camouflage Screen System Woodland Lightweight, Radar Scattering
TM 5-2805-256-24P Sep Maint/RPSTL Engine, 1½ HP MILSTD Mdl 1A08
TM 5-2805-257-24P Sep MILSTD Maint Engine 3 HP Ser 2A016
TM 5-4320-273-14 Oct Pumping Assembly 350 GPM (Gorman-Rupp)
C1, TM 5-4930-226-12 Oct Nozzle Assembly, Closed Circuit Refueling with Strainer Assembly
TM 5-5420-211-ESC Sep M60A1/M48A1 Bridge Launchers
TM 5-6115-271-24P Oct Maint RPSTL Generator Set 3 KW MEP-016A/MEP-021A and MEP-026A
TM 5-6115-323-24P Sep Maint RPSTL Generator Set, 1.5 KW AC 120/240 Volts, 28 VDC MEP-15A, Hertz 60, MEP-25A, 28 VDC
TM 9-1340-418-12 Nov Ballistic Aerial Target System (BATS)
TM 9-1425-473-20 Sep TOW Airborne System
TM 9-1425-473-23P Sep TOW Airborne System
C8, TM 9-2350-215-20 Dec Org Maint M60/M60A1 Tanks
C2, TM 9-2350-230-20-1 Oct M551 Sheridan Hull Org Maint
TM 9-6920-428-20P Sep Training Set, Guided Missile System M76 (REDEYE)
C5, TM 11-5090 Oct AN/PRM-15() Multimeter
TM 11-5410-213-14P Sep S-280A/G & B Electrical Equipment Shelters
TM 11-5815-334-ESC-1 Aug AN/GRC-142() Radio Teletypewriter Set
C1, TM 11-5820-501-12-1 Oct AN/FRA-53A Antenna Group
C3, TM 11-5820-595-12 Nov AN/GRC-143 Radio Set
C3, TM 11-5820-695-12 Nov AN/GRC-144 Radio Set
C8, TM 11-5840-298-12 Nov AN/PPS-5() Radar Set
C7, TM 11-5855-203-13 Sep AN/PVS-2() Night Vision Sight
TM 11-5895-225-ESC Oct SB-675/MSC Communication Patching Panel
C1, TM 11-5895-344-14 Oct Op/Org/DS/GS Maint AN/TRA-39A Antenna Group
C3, TM 11-5895-441-10 Oct AN/GLQ-3 Countermeasures Set
TM 11-5895-441-25/1 Nov AN/GLQ-3 Countermeasures Set
C1, TM 11-5915-223-12 Oct MX-7778 Electrical Transient Suppressor
C1, TM 11-6615-242-25P Nov Gyroscopic Compass System Type C-12
TM 11-6625-277-14 Nov TS-682()/GSM-1 Meter Test Set
C2, TM 11-6625-358-15 Oct SG-71()/FCC Signal Generators
C3, TM 11-6625-479-12 Oct AN/ASM-113 Navigation Signal Simulator
TM 11-6625-536-24P Nov Crystal Impedance Meters TS-330()/TSM
TM 11-6625-575-24P Oct Signal TS-452E/U Signal Generator
C1, TM 11-6625-2375-15 Oct AN/USM-252 Signal Generator
C1, TM 11-6625-2376-15 Oct AN/USM-256 Signal Generator
TM 11-6625-2644-24P Oct AN/USM-205A Signal Generator
C5, TM 11-6720-242-12 Oct KA-60C Still Picture Camera
C2, TM 11-6740-209-10 Nov PH-75-B Dryer
C7, TM 55-405-9 Oct Avn Weight and Balance
C13, TM 55-1510-201-20 Oct U-8D, U-8G, RU-8D and U-8F
TM 55-1510-204-20, PMD/1 Oct OV-1D PM Daily Checklist
TM 55-1510-204-20 PMP/1 Oct OV-1D PM Periodic Checklist
C7, TM 55-1510-209-20/1 Nov U-21A, RU-21A and RU-21D
C11, TM 55-1520-209-20-1 Nov CH-47A Helicopter
C10, TM 55-1520-209-20-1 Oct CH-47A Helicopter
C3, TM 55-1520-210-PMS Oct UH-1D/H PM Services
C3, TM 55-1520-219-PMS Oct UH-1B PM Services
C3, TM 55-1520-220-PMS Oct UH-1C/M PM Services
C5, TM 55-1520-221-PMD Nov Ah-1G PM Daily
C6, TM 55-1520-221-PMI Nov AH-1G PM Intermediate
TM 55-1520-221-PMP Nov AH-1G PM Periodic
C16, TM 55-1520-227-20-1 Oct CH-47B and CH-47C Helicopters
C17, TM 55-1520-227-20-1 Nov CH-47B and CH-47C
C1, TM 55-6670-201-14 Sep Aircraft Weighing Kit

MISCELLANEOUS

C3 AR 710-2 Aug Supply Procedures

NEW MOVIES

TF 46-4811 CH-47 Cockpit Procedures-Part II
TF 46-4930 CH-47 Cockpit Procedures-Part I

Acting CO OK

Shook up over the acting commander cut in para 2-2c of Change 3 to AR 710-2 on approving high priority requests? Relax.

When a commander is absent, the delegated acting commander is legally the commander and qualifies.

Exercise AVLB Launcher

Every 30 days, for sure, go thru 5 complete launch, retrieve cycles with the bridge attached. Para 2-4d(6) Note, page 2-36, TM 5-5420-202-10 (Dec 75) has the word.

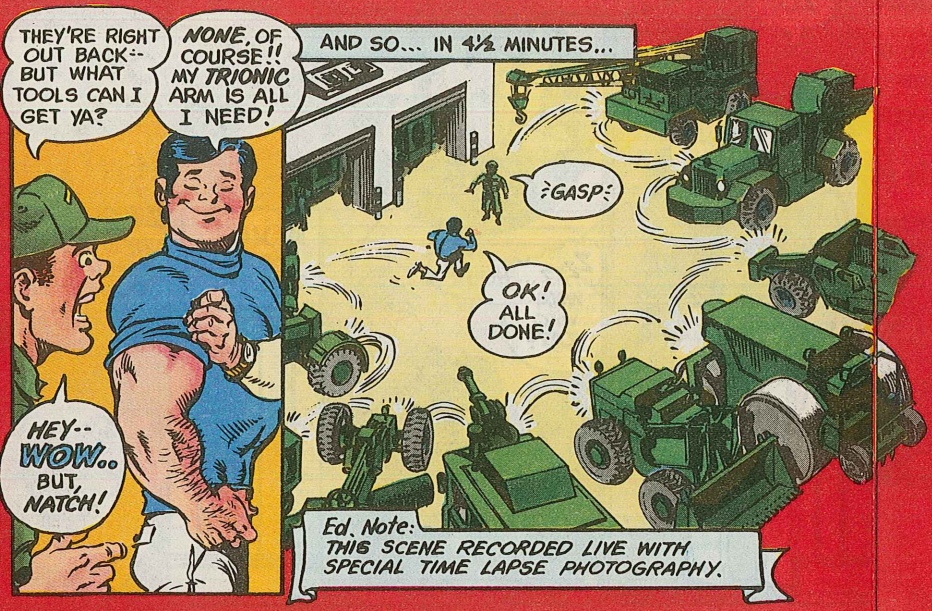
Let Sleeping Bags Lie

You have a waterproof clothing bag to keep your sleeping bag clean and dry.

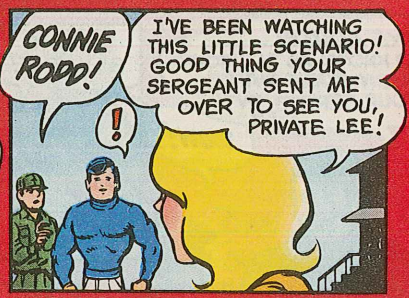
It's not meant to carry your tent pins, mess kit, chessboard or poker chips . . .

M5 Riot Disperser

TM 3-1040-220-12 (May 63) doesn't call for calibrating the high and low pressure gages on your M5 riot control agent disperser. They have to be, tho, like it says in TB 43-180 (May 74). Both gages—NSN 6685-00-087-4573 (0-200 PSI Model) and NSN 6685-00-087-6925 (0-3000 PSI Model)—get calibrated every 180 days.

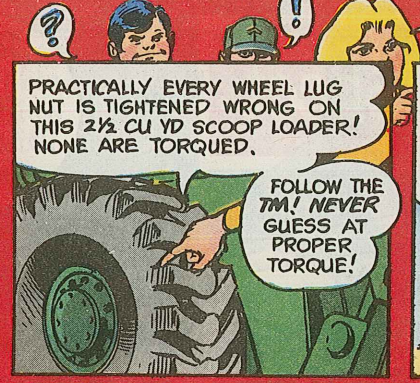

THEY'RE RIGHT OUT BACK-- BUT WHAT TOOLS CAN I GET YA?
NONE, OF COURSE!! MY TRIONIC ARM IS ALL I NEED!
HEY-- WOW.. BUT, NATCH!
AND SO... IN 4½ MINUTES...
:GASP:
OK! ALL DONE!
Ed. Note: THIS SCENE RECORDED LIVE WITH SPECIAL TIME LAPSE PHOTOGRAPHY.

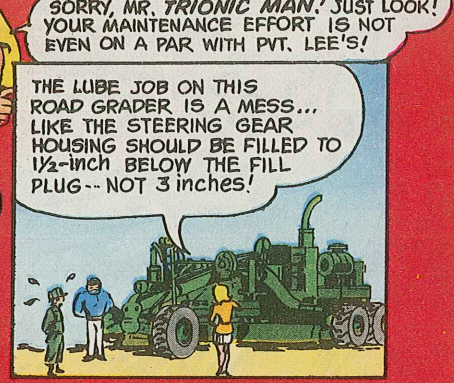

YA STILL GOT 5½ MINUTES LEFT, LEE, OLD CHAP! ANY OTHER MAJOR PROBLEMS?
GULP.. ER, NO..
HOLD ONE!

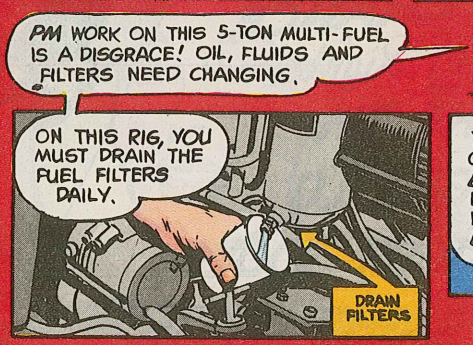

CONNIE RODD!
!
I'VE BEEN WATCHING THIS LITTLE SCENARIO! GOOD THING YOUR SERGEANT SENT ME OVER TO SEE YOU, PRIVATE LEE!

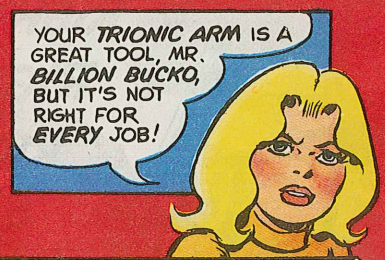

ER, CONNIE, MEET ZEKE ALSTON, TH' TRIONIC MAN!
BEEN WANTING TO MEET YOU, CONNIE! WE'VE GOT A LOT IN COMMON, DOLL!
?!
WHAT DID YOU THINK OF THAT FER FAST, ON THE SPOT PM?

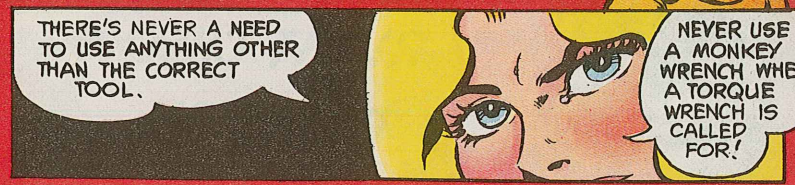

WELL, IT WAS FAST AND ON THE SPOT-- BUT SURE NOT MY KIND OF MAINTENANCE!
C'MON-- LET'S TAKE A CLOSE LOOK AT YOUR-ER-- WHIZ BANG PREVENTIVE MAINTENANCE...


?
!
PRACTICALLY EVERY WHEEL LUG NUT IS TIGHTENED WRONG ON THIS 2½ CU YD SCOOP LOADER! NONE ARE TORQUED.
FOLLOW THE TM! NEVER GUESS AT PROPER TORQUE!


SORRY, MR. TRIONIC MAN! JUST LOOK! YOUR MAINTENANCE EFFORT IS NOT EVEN ON A PAR WITH PVT. LEE'S!
THE LUBE JOB ON THIS ROAD GRADER IS A MESS... LIKE THE STEERING GEAR HOUSING SHOULD BE FILLED TO 1½-inch BELOW THE FILL PLUG-- NOT 3 inches!


PM WORK ON THIS 5-TON MULTI-FUEL IS A DISGRACE! OIL, FLUIDS AND FILTERS NEED CHANGING.
ON THIS RIG, YOU MUST DRAIN THE FUEL FILTERS DAILY.
DRAIN FILTERS

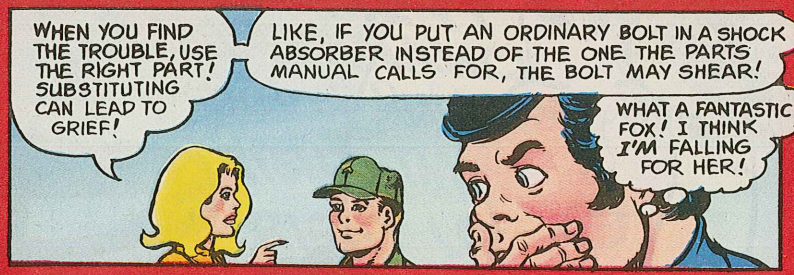

YOUR TRIONIC ARM IS A GREAT TOOL, MR. BILLION BUCKO, BUT IT'S NOT RIGHT FOR EVERY JOB!

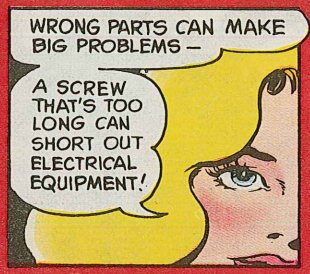

THERE'S NEVER A NEED TO USE ANYTHING OTHER THAN THE CORRECT TOOL.
NEVER USE A MONKEY WRENCH WHEN A TORQUE WRENCH IS CALLED FOR!

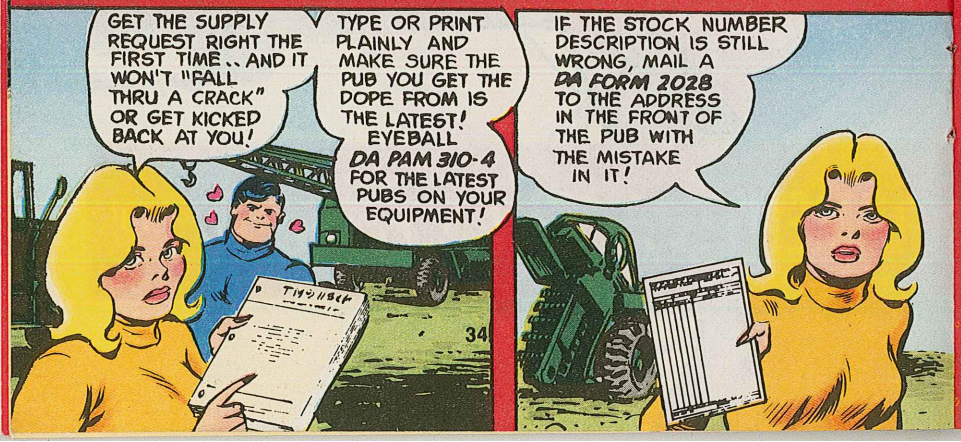

TOO BAD, PRIVATE LEE, BUT YOUR WELL-MEANING FRIEND HAS BATTERED A LOT OF PARTS BECAUSE HE DIDN'T GET THE RIGHT TOOL FOR THE JOB!
IN "SAVING TIME", HIS TRIONIC POWERS HAVE MADE BIGGER JOBS NECESSARY!
!
:GULP:

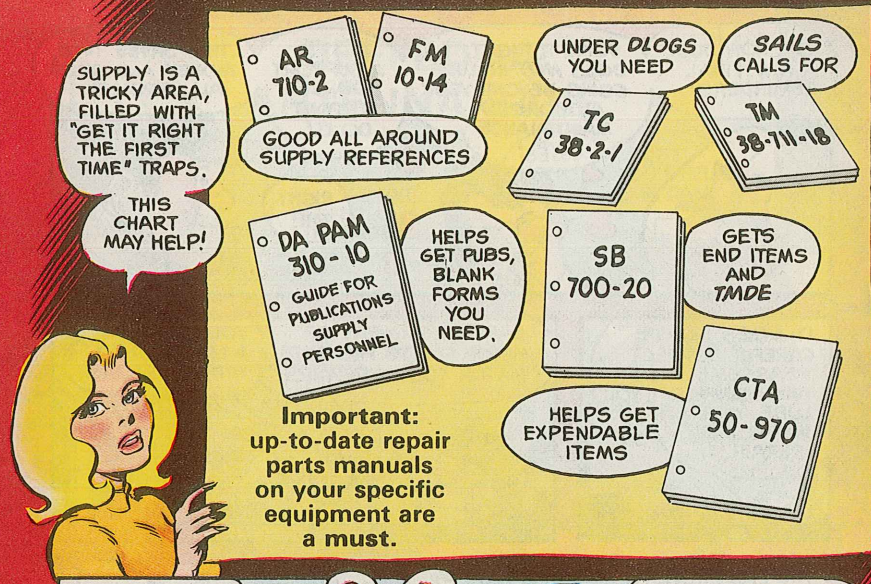

THE MESSAGE IS: A REAL PRO DOES IT RIGHT THE FIRST TIME AROUND!
HERE- HANG THIS POSTER AS A REMINDER!


JOE'S Dope Sheet
Right on is the way it'll be,
If you hack it this way, you'll see--
Be right the first time
With tool or with rhyme,
With PM a Pro you can be.
Connie Rodd's
EQUIPMENT
MAINTENANCE
Bill of Rights
RIGHT TM
RIGHT LO
RIGHT TOOLS
RIGHT PARTS
RIGHT CHECKS
RIGHT ON
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.

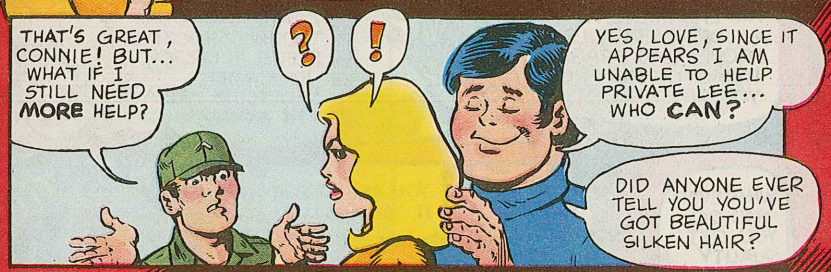






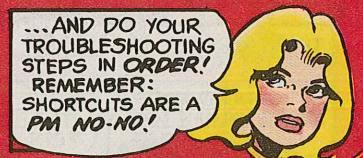


Important: up-to-date repair parts manuals on your specific equipment are a must.



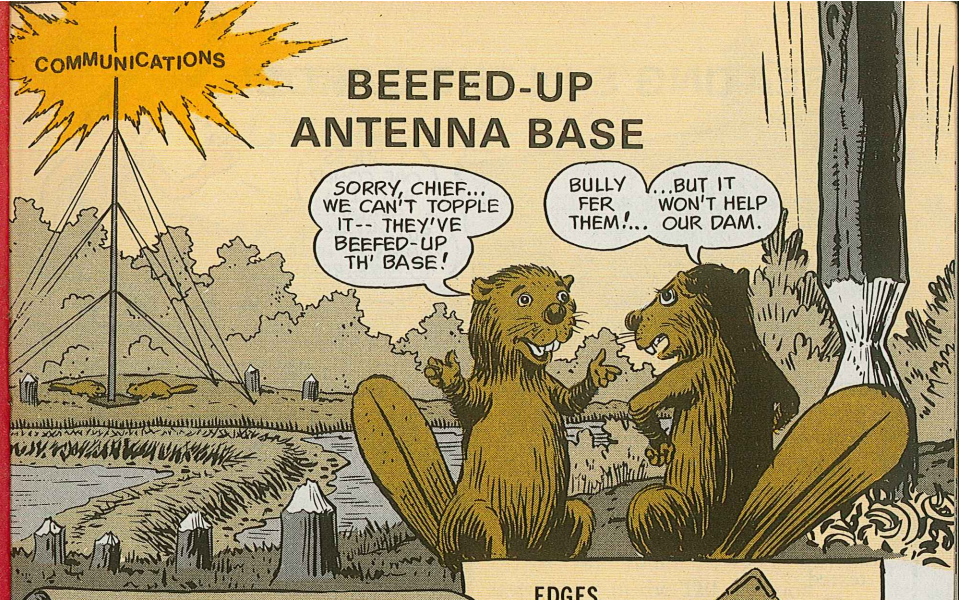
TRY THESE SOURCES FOR STARTERS:

- **MAIT**—Maintenance Assistance and Instruction Teams. Always ready to help when you've got a problem you can't handle. **MAIT** is as near as your telephone.
- **LAO**—Logistic Assistance Offices of Army Materiel Command. **LAO** maintenance technicians on practically all army tactical equipment are all over the army. Check your phone book . . . or ask your support.
- Field maintenance technicans from **AMC** Commodity Commands.
- Your **NCOIC** or your shop supervisor. They're high up on your assist list.
- **YOURSELF** . . . most important!



COMMUNICATIONS

BEEFED-UP ANTENNA BASE



Dear Editor,

There's no end to repairing—or replacing—the base plate for the AN/TRA-37 antenna group. The edge of the plate is thinner at the sides than it is at the corners, so it chips and cracks. This calls for repairs by welding.

So we beat the problem by having the side edges built up to the same thickness as the corner edges.

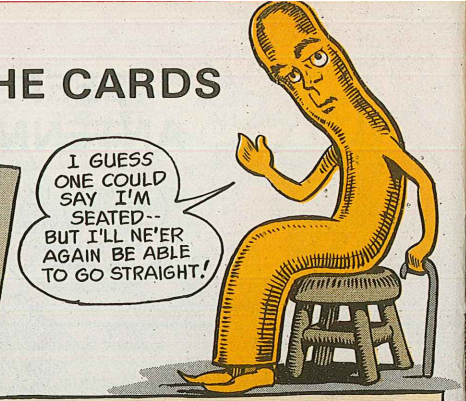
Besides adding strength, this makes for even ground contact all the way around the plate instead of just at the corners.

SSG Paul Hunter
172d Infantry Bde
Alaska

SEATING'S IN THE CARDS

Dear Half-Mast,
Quarterly PM checks and services in TM 11-5805-382-12 (Dec 67) for the TD-660()/G multiplexer say to inspect the seating of pluckout items. How do you check the seating of such items as the 11A5 or 11A26 channel panels?

SP4 J.R.W.



Dear Specialist J.R.W.,

Glad you asked.

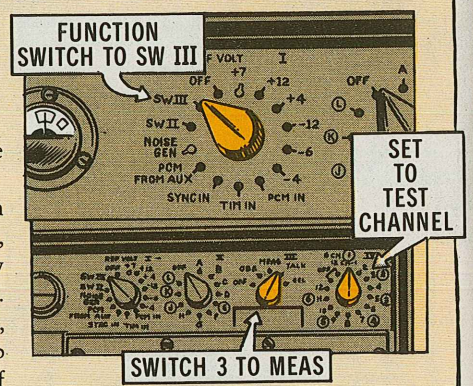
Set the function switch to SW III.

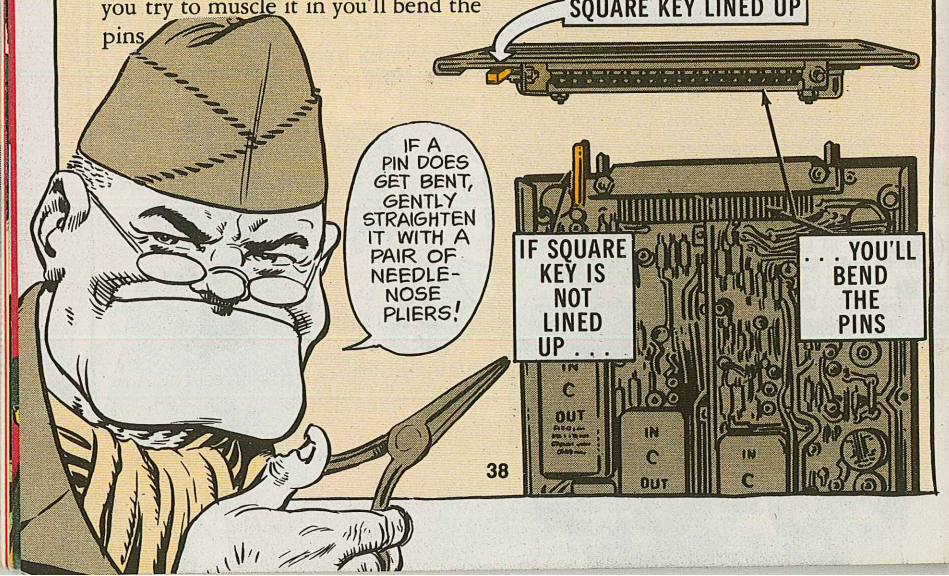
Set switch 3 to MEAS (measure).

Set channel switch to channel to be tested.

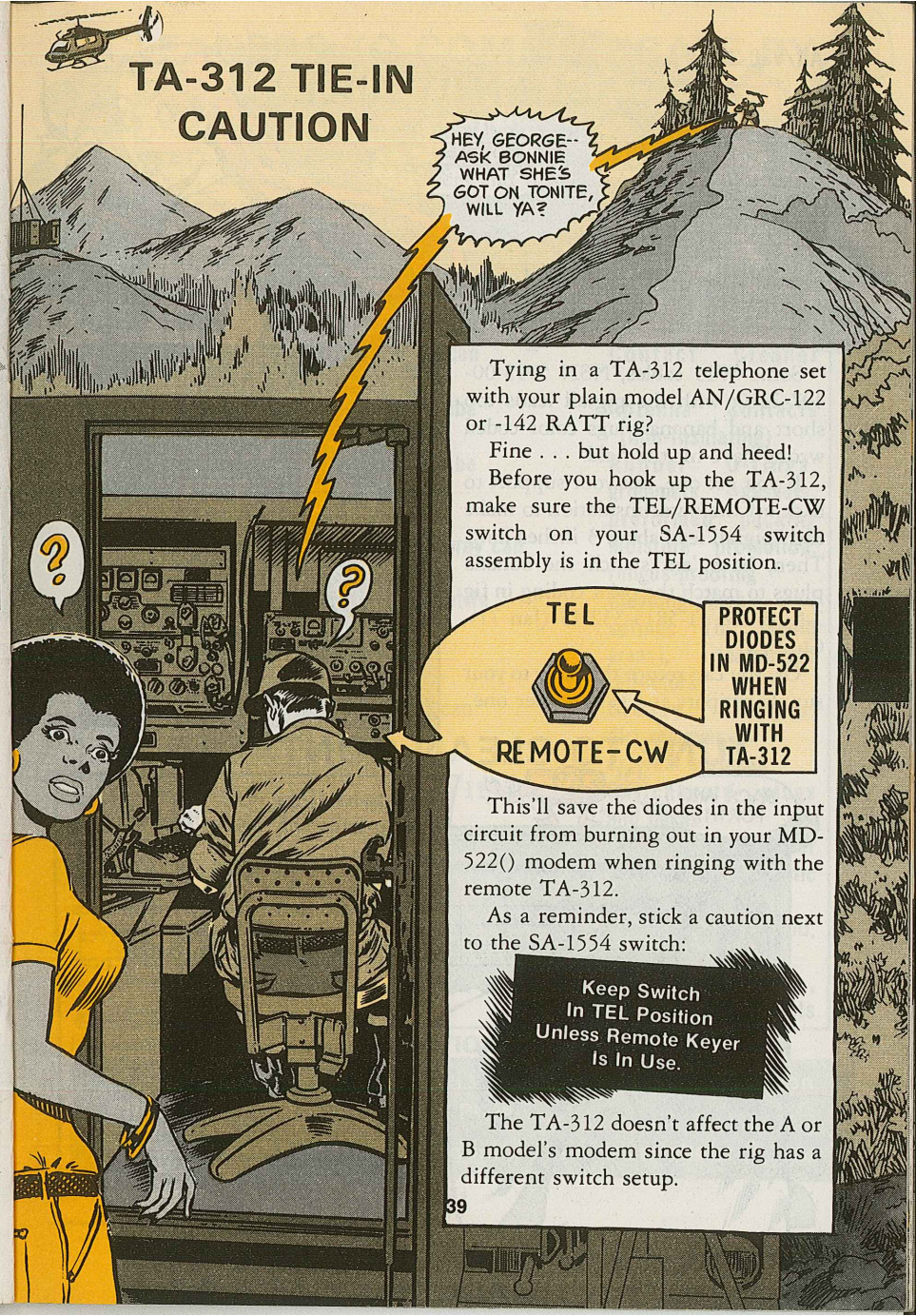
Then, attempt to vary channel gain of that channel. If you can adjust gain, you are seated. If you cannot, you may have a bent pin on the panel or card.

When you're plugging in the card, make sure the square key is lined up before pushing the card in slowly. If you try to muscle it in you'll bend the pins.





TA-312 TIE-IN CAUTION



Tying in a TA-312 telephone set with your plain model AN/GRC-122 or -142 RATT rig?

Fine . . . but hold up and heed!

Before you hook up the TA-312, make sure the TEL/REMOTE-CW switch on your SA-1554 switch assembly is in the TEL position.

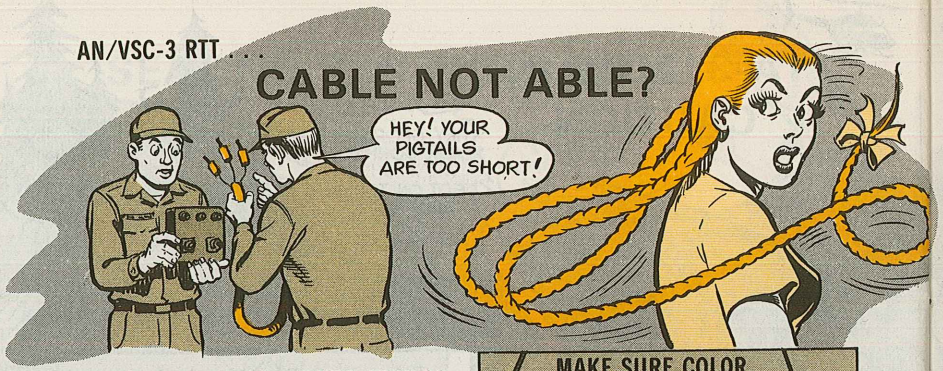
This'll save the diodes in the input circuit from burning out in your MD-522() modem when ringing with the remote TA-312.

As a reminder, stick a caution next to the SA-1554 switch:

Keep Switch In TEL Position Unless Remote Keyer Is In Use.

The TA-312 doesn't affect the A or B model's modem since the rig has a different switch setup.

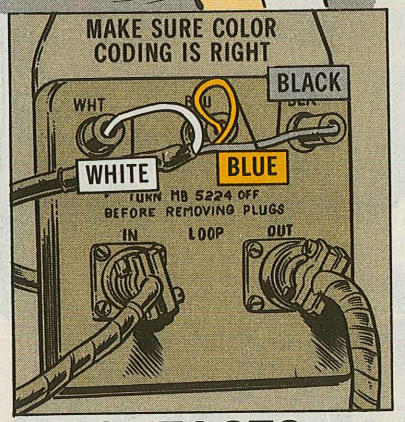
CABLE NOT ABLE?



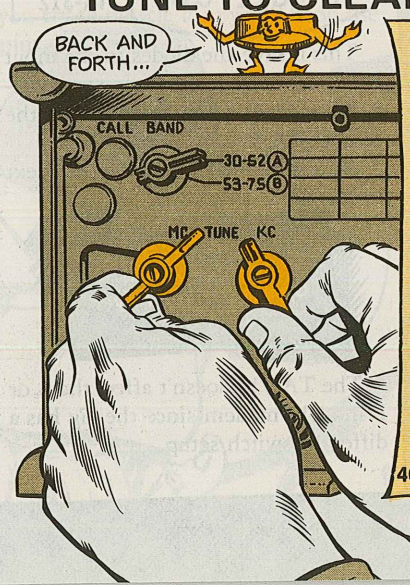
Some W15 cables, NSN 5995-00-407-2810, with the pigtail leads too short and banana plugs color coded wrong have hit the field.

If you get one, ask your support to back off the outer insulation to make each pigtail lead about 3 inches long. Then, have 'em switch the banana plugs to match the color coding in fig 7-5 of TM 11-5815-332-15 (Jan 71), Ch 2.

Or, you can return the cable to your supply support and get another one.



TUNE TO CLEAN CONTACTS



A twist of the wrist can help head off trouble on your AN/VRC-12 series radio set.

That's right. Tuning contacts get dirty if you don't change frequencies on your RT-246(), -524() receiver-transmitter or R-442() receiver now and then.

So, give your gear a helping hand by turning your tuning switches back and forth several times. This'll help clean the contacts.

And, you may try tuning past the operating frequency and then tuning back to it. This will clean contacts, too.

CLEANERS TO COMMUNICATE BY

Cleaners, sealants, moisture-fighters and the like come in mighty handy when it comes to taking care of communications/electronics equipment.

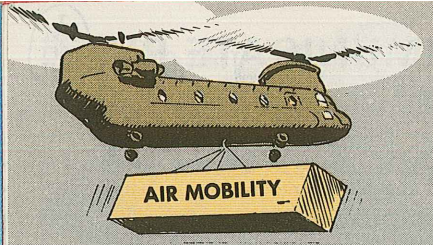
Some of these wiper and dabber preventive maintenance aids for radios, telephones, radar, etc., are:

NOMENCLATURE (NSN)	QUANTITY	SOME USES
Trichloroethane (6810-00-930-6311)	12-oz can	Contact Cleaner
Silicone grease (9150-00-257-5358)	8-oz tube	Antenna Contacts (non-Insulating)
Silicone compound (6850-00-880-7616)	8-oz tube	Rubber O-rings, grommets, gaskets, preformed packing
Varnish (8010-00-515-2487)	1-pt spray can	Moisture protection, fungus-proofing
Denatured alcohol (6810-00-201-0906)	1-pt bottle	Cleaning plugs, springs (in humid areas), searchlight reflectors
Cleaning compound (6850-00-597-9765)	1-gal can	Grease, fungus, dirt remover, external surfaces
Polishing cloth (7920-00-985-6849)	13½ by 11-in	Switchboard plugs and packs
Freon type TF (6850-00-105-3084)	16-oz can	Cleaning recorder heads and electronic components
Silicone compound (6850-00-927-9461)	5-oz tube	Heatsink compound, heat protection
Isopropyl alcohol (6810-00-753-4993)	8-oz can	Cleaning boards, electronic components

CAUTIONS—

- Remember, use only cleaners, solvents and adhesives on equipment as directed by tech pubs.
- Heed hazards and warnings in the pubs and on labels.

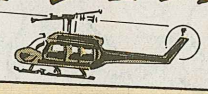
FLY ING FORM-ATION



FILLING OUT FORMS SOMETIMES GIVES CREWCHIEFS A FEELING OF FLYING BLIND. SO HERE'RE SOME NAVIGATIONAL TIPS!

Q: How do you indicate that a PMI or PMP is being pulled early? TM 38-750 doesn't really say.

A: Para 4-2c (1) (a) in TM 38-750 lists the conditions for status symbol X, and one of those is when PMI or PMP is due, meaning that the hours listed in block 9 of the DA Form 2408-13 have been reached or exceeded and the PMI or PMP has not been completed. However, when you schedule the inspection a few hours before it's due, put a red diagonal status symbol in block 16. In block 17 write, "PMP No. 10 in process" or "No. 10 PE in process". As soon as you find anything that requires red X'ing, change the status symbol on the form. 'Course you must complete the inspection and all maintenance work before or by the actual due time or the status changes automatically to a red X.



1. DATE	2. MODEL	3. SERIAL NO.	4. NAME OF CREW CHIEF/MECHANIC	5. STATION	6. PAGE NO.	6a. NO. OF PAGES
10 JUN 75	UH-1H	66-16658	R. Stryme	Fort Knox, Ky	1	1

7. STATUS TODAY

AIRCRAFT	ELECTRONIC	ARMAMENT	OTHER
1 / 4			
2 5			
3 6			

8. AIRCRAFT TIME

TIME TO DATE	3393:5
TIME TODAY	:
TOTAL TIME	:

9. NEXT INSPECTION DUE

INTMED NO. 1	3420:5	
P.E. NO. 10	3395:5	
OTHER	:	

10.

	HOT STARTS NO. 1 ENGINE	HOT STARTS NO. 2 ENGINE	LANDINGS	OTHER
PREVIOUS	0	/	8	DER Check
TODAY				OAT-
TOTAL				NI-
				EGT-

11. FUEL (Gals or Lbs)

SERVICE NO.	GRADE	ADDED	TOTAL IN TANKS
1	JP-4		209
2			
3			
4			
5			
6			
7			
TOTAL			

12. OIL (Quarts)

GRADE	ADDED NO. 1 ENG	TOTAL IN TANKS	ADDED NO. 2 ENG	TOTAL IN TANKS	APU
23699				12	

13. OXYGEN (PSI)

14. ANTI-ICING FLUID (Gals)

15. SERVICED

BY	STATION
R. Stryme	Ft. Knox, KY

16. STATUS / 17. FAULTS AND/OR REMARKS: PE No. 10 IN PROCESS E. Simmons

18. ACTION TAKEN

19. SIGNATURE

DA FORM 2408-13, 1 DEC 66 REPLACES EDITION OF 1 JAN 64, WHICH WILL BE USED (TM 38-750) AIRCRAFT INSPECTION AND MAINTENANCE RECORD

Q: When our unit transcribes red X's from DA Form 2404 to DA Form 2408-13, we sign the red X's off on the DA Form 2408-13 after corrective action has been taken. Our inspectors say we must also complete the 2404's by placing an initial over the status symbol and having a TI sign off on that form, too. Who's right?

A: You're right! To clear a red X from the DA Form 2408-13 when the fault has been corrected, a TI's signature is required. However, after you transcribe a red X from the 2404 to a DA Form 2408-13, a tech inspector's signature is not required on the 2404 since no corrective action was taken.

ENTER MWO INFO ON A DA FORM 2408-14 FOLLOWING INSTRUCTIONS IN PARA 4-13c OF TM 38-750.

1. NOMENCLATURE: Helicopter

STATUS SYMBOL a	FAULT b
—	10 JUN 75 Overdue MWO 55-1500-210-30-44

Q: Do you carry MWO's on DA Forms 2408-13 and -14?

A: Over due MWO's—yes. Any time an MWO is published on your equipment, it must be entered on a DA Form 2408-5 for that item but that's all until the MWO becomes overdue. Once the MWO becomes overdue, tho, it affects the status of the aircraft. Even an overdue **normal** *MWO is considered a deferred maintenance action until it is completed. Put the appropriate status symbol in block 16, the explanation and your signature in block 17 of the DA Form 2408-13. Then, if required, enter the overdue MWO info on the DA 2408-14.*

Q: What do you do when you enter a status symbol in the wrong column of block 7 on a DA Form 2408-13?

A: When a status symbol is entered incorrectly in block 7, put the entry in the next open space of the correct column, explain the double entry in blocks 17 and 18, and then sign in block 19.

2. MODEL	3. SERIAL NUMBER		
CH-47C	67-18494		
REASON FOR DELAY c	DATE (From DA Form 2404 or 2408-13) d	ENTRY APPROVED (Signature) e	DATE (To DA Form 2408-3 or 2408-13) f
5161-0017 No kits available	10 JUN 75	A. Martin	

CHECK THE INFO BELOW ON FILLING OUT BLOCK 7.

1. DATE: 10 JUN 75 | 2. MODEL: UH-1H | 3. SERIAL NO.: 66-16658 | 4. NAME OF CREW CHIEF/MECHANIC: R. Styme | 5. STATION: Fort Knox, KY | 6. PAGE NO.: 1 | 6a. NO. OF PAGES: 1

7. STATUS TODAY

	AIRCRAFT	ELECTRONIC	ARMAMENT	OTHER
1	X		X	
2				
3				
4				
5				
6				

8. AIRCRAFT TIME: TIME TO DATE 3318:5; TIME TODAY 2:3; TOTAL TIME 3320:8

9. NEXT INSPECTION DUE: INTMED NO. 1 — 3325:5; P.E. NO. 10 — 3395:5; OTHER

10. HOT STARTS / LANDINGS / OTHER

	NO. 1 ENGINE	NO. 2 ENGINE	LANDINGS b	OTHER c
PREVIOUS	0	/	76	OAT
TODAY		/	2	N1
TOTAL		/	78	EGT

11. FUEL (Gals or Lbs) / 12. OIL (Quarts) / 13. OXYGEN (PSI) / 14. ANTI-ICING FLUID (Gals) / 15. SERVICED

SERVICE NO.	FUEL GRADE	FUEL ADDED	FUEL TOTAL IN TANKS	OIL GRADE	OIL ADDED NO. 1 ENG	OIL TOTAL IN TANKS	OIL ADDED NO. 2 ENG	OIL TOTAL IN TANKS	APU	SERVICED BY	SERVICED STATION
1	JP4		209	23699		12				R. Styme	Ft. Knox, KY
2											
3											
4											
5											
6											
7											
TOTAL											

WHEN YOU ENTER THE STATUS SYMBOL IN THE WRONG COLUMN IN BLOCK 7, PLACE THE STATUS IN THE CORRECT COLUMN AND EXPLAIN THE DUPLICATION IN BLOCKS 17 AND 18. SIGN IN BLOCK 19.

16. STATUS	17. FAULTS AND/OR REMARKS	18. ACTION TAKEN	19. SIGNATURE
X	Eng tach inoperative. E. Simmons Status placed erroneously in Electronics col., block 7	Entered status in Aircraft col.	E. Simmons

DA FORM 2408-13, 1 DEC 66 REPLACES EDITION OF 1 JAN 64, WHICH WILL BE USED (TM 38-750) AIRCRAFT INSPECTION AND MAINTENANCE RECORD

Q: When you fill up block 7 on a DA Form 2408-13 and go to a second page, what date goes on the new -13?

A: When you go from one page to another, enter the same date that appeared on page 1 on each following page.

PS END

HOW LONG IS 6 MONTHS?

LAST 6 MONTHS OF *OPERATION!*

YER *NUTZ!!* LAST 6 *CALENDAR* MONTHS!

Dear MSG Half-Mast,

There seems to be a difference of interpretation on TM 38-750, page 4-23, para 4-12d(3): "DA Form 2408-13 will be maintained for 6 months, then destroyed."

Some people say that means the last 6 months of operation. Others say it's the last 6 calendar months. And both sides would rather fight than switch.

What's the scoop, Sarge?

SP6 C.L.R.

Dear Specialist C.L.R.,

DA Forms 2408-13 are to be kept for 6 calendar months after the last daily operation entry.

But TM 38-750 also requires a current DA 2408-13 in the aircraft logbook. So, even after six months, one copy of the -13 should be on hand.

Usually when you put the aircraft into storage, you take out some components and unhook others, grounding the aircraft.

That's why the bird is usually put into storage with a red X status symbol on the -13. Until that status symbol is changed by replacing parts, inspection and a test flight, the status symbol stays on the form in the logbook as an uncompleted action.

DA FORM 2408-13

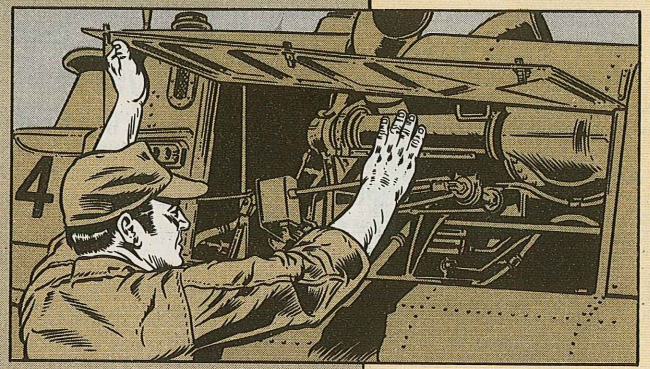
THAT WAY THE *DA 2408-13* SHOWING THAT STATUS SYMBOL IS CURRENT UNTIL THE STATUS IS TRANSFERRED TO ANOTHER FORM OR CLEARED.

HOT END TOOL

Dear Editor,

I've been working for some time with the T63-A-700 engine and pulling the hot end, due to high operating temperature, is a problem.

The rear lip of the heat shield is directly under the area where the hot section separates. You only have about ¼-in clearance between the shield and combustion chamber. The 5 nuts are easy to reach but putting a hexhead wrench in position to hold the bolts is something else—impossible!

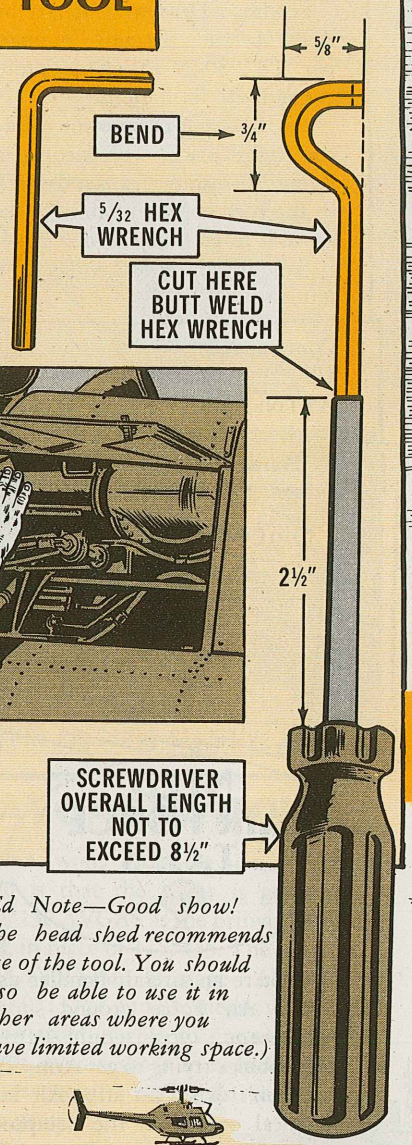


Well, we made a special tool which saves time and elbow grease.

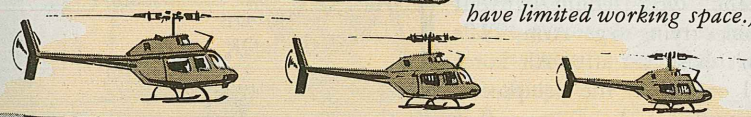
Just cut off a salvaged screwdriver and weld a 5/32-in hex wrench to it, so it's not over 8½ inches long.

Bend the hex wrench as shown and the tool is complete.

SSG Louis Adams
Louisiana ARNG



(Ed Note—Good show! The head shed recommends use of the tool. You should also be able to use it in other areas where you have limited working space.)



GET IT RIGHT!

Sending a DA Form 2404 to the US Army Aviation Systems Command as per TB 750-99-15 on maintenance expenditure limitations?

Good . . . but be sure you send it to the right place. The wrong office symbol, f'rinstance, can land your 2404 in the rock-bottom of an in-basket or cause it to get misplaced.

Submit your reports with a covering letter to:

Commander
US Army Aviation Systems Command
ATTN: AMSAV-F
PO Box 209
St. Louis, MO 63166

TB 750-99-15

DEPARTMENT OF THE ARMY TECHNICAL BULLETIN

MAINTENANCE EXPENDITURE LIMITATIONS FOR ARMY AIRCRAFT

Headquarters, Department of the Army, Washington, D.C.
6 June 1973

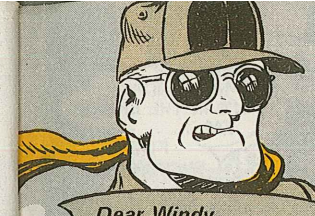
	Paragraph	Page
GENERAL	1	2
	2	2
		2

NEED AIR FORCE T.O.'S ?

If you're an aircraft handler using former Air Force ground support equipment, you could sprout collywobbles trying to get Army TM's that don't exist. Go after Air Force technical orders on the equipment.

Oklahoma City Air Logistic Center
ATTN: MMSUB
Tinker AFB, OK 73145

TAPE IS BETTER



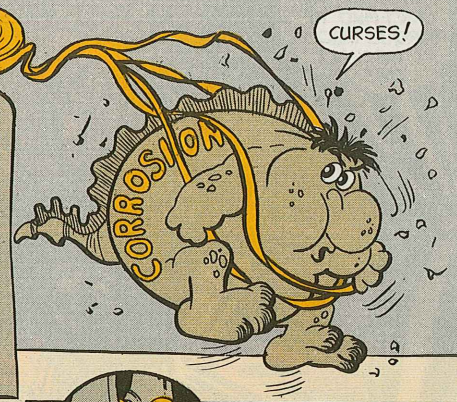
Dear Windy,

Some of our Kiowas have zinc chromate on the flight control servos to prevent corrosion caused by contact between dissimilar metals.

Para 6-14d(1) of TM 55-1520-228-20 (Oct 72) says we should use dissimilar metal tape on the servo actuator support or on the trunnion plates.

Should we change over to the tape, Windy?

SP7 V.R.H.

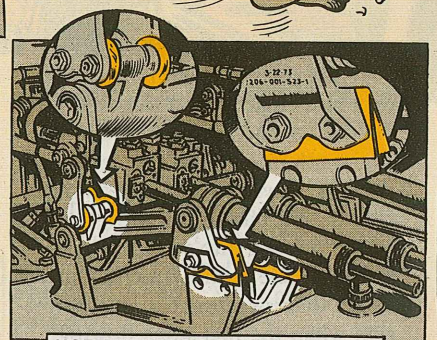


Dear Specialist V.R.H.,

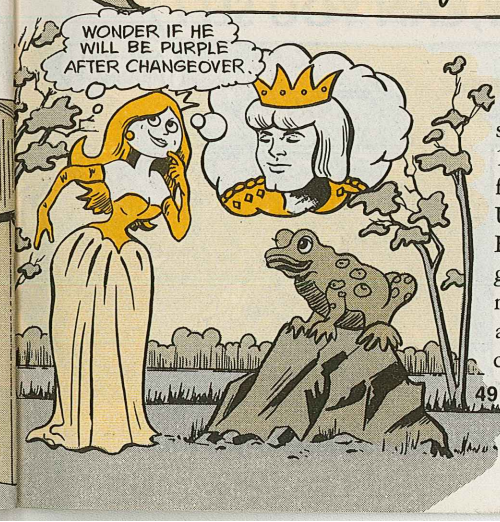
Yes—but only when the servo actuators or brackets are removed for normal maintenance. Zinc chromate has been used in the past but the tape gives you better protection and is easier to put on.

Ask for pressure sensitive tape, MIL-T-23142. NSN 7510-00-472-4021 will get you a 72-yd roll.

Windy



USE PRESSURE SENSITIVE TAPE

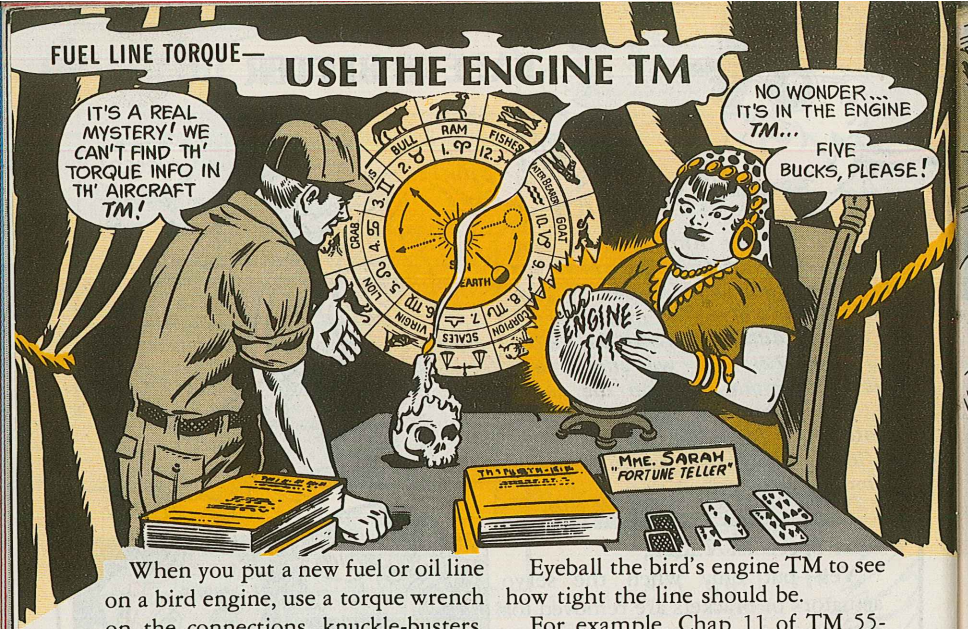


AVGAS SWITCH

The "word" from the aircraft head shed is that the Army is going to 100/130 AVGAS as the primary recip fuel, in place of 115/145. The info, in USAAVSCOM Message AMSAV-FEG 051354Z Jun 75, means you'll be going from purple to green juice—maybe even a shade in between with a mixture of both during the changeover.

blue : low-lead 100/130

FUEL LINE TORQUE— USE THE ENGINE TM



When you put a new fuel or oil line on a bird engine, use a torque wrench on the connections, knuckle-busters. Too much or too little torque can lead to leaks, so you've got to get it right.

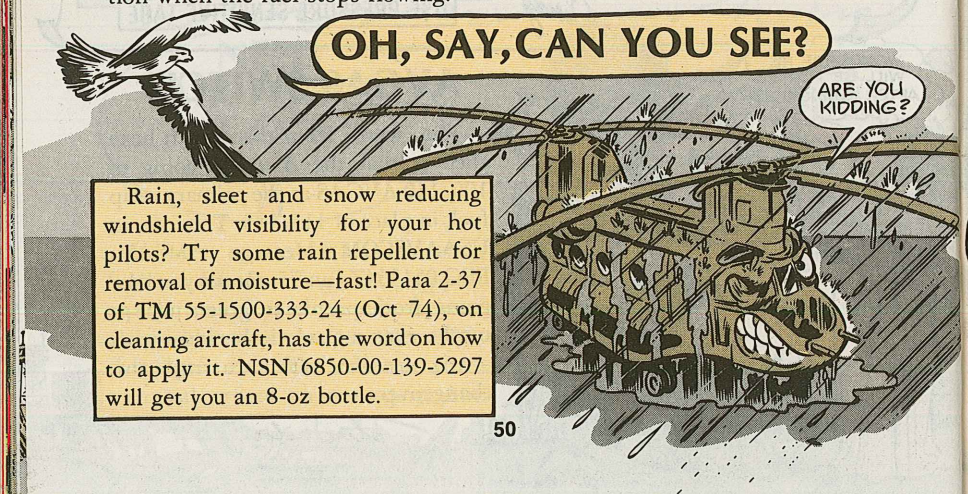
Sure, it'll take some doing to fit a torque wrench into the close quarters of an engine compartment. But it's better than sweating out an autorotation when the fuel stops flowing!

Eyeball the bird's engine TM to see how tight the line should be.

For example, Chap 11 of TM 55-2840-231-24 (Mar 72) has the torque values for bolts, screws, studs, flared tubing, tube fittings and flexible hose connections on the T-63 engine.

Even experienced mechs can't outguess a torque wrench!

OH, SAY, CAN YOU SEE?



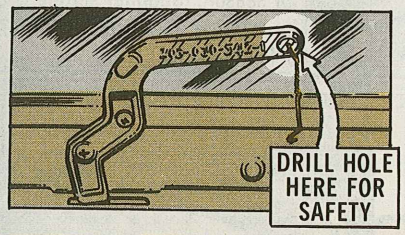
Rain, sleet and snow reducing windshield visibility for your hot pilots? Try some rain repellent for removal of moisture—fast! Para 2-37 of TM 55-1500-333-24 (Oct 74), on cleaning aircraft, has the word on how to apply it. NSN 6850-00-139-5297 will get you an 8-oz bottle.

FOR A SECURE SAFETY

The problem with looping safety wire over the emergency release handles on your Huey's cargo door window is that the wire can come off. Windows can be accidentally jettisoned.

To prevent such a revoltin' development, the head shed says to drill a 1/32-in hole at the end of the handle to accept the safety.

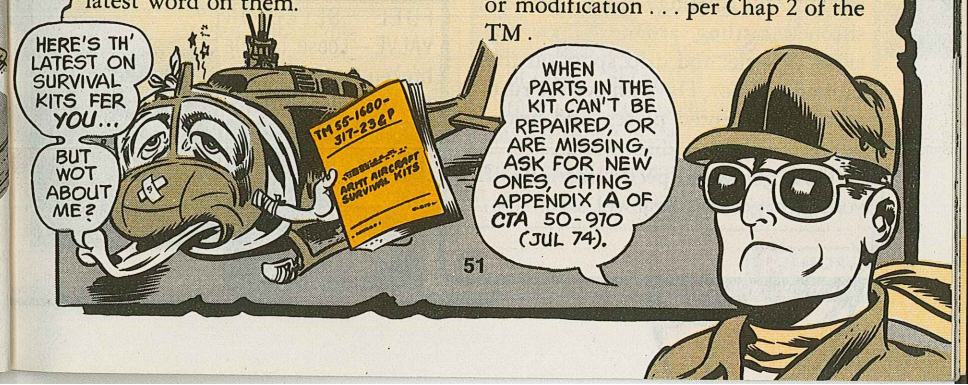
Use 0.020-in copper breakaway wire for your safety, as called for in para 4-34e(3) of TM 55-1520-210-20 (Sep 71). If you're fresh out, NSN 6145-00-236-9503 will get you a pound.



SURVIVAL KIT PM

Are you riding herd on aircraft survival kits? Eyeball a copy of TM 55-1680-317-23 & P (Aug 75) for the latest word on them.

Preventive maintenance checks and services are done prior to issue, every 90 or 180 days, before and after repair or modification . . . per Chap 2 of the TM .



COMBAT SUPPORT

BE YOUR OWN INSPECTOR . . .

MALL ELECTRIC GENERATORS

No outfit runs very long if its electric power supply stops. And you can up your own stock as a generator operator with good once-over inspections.

AROUND THE HORN

Give your kilowatt kicker a general scanning to begin with. See whether the frame is bent. Was the rig set up straight? No cowling flapping loose or shrouds rattling around? Look for signs of leaks and drip spots on the ground or floor. Have an eye for rust, crushed or dented places, and heavy deposits of greasy dirt.

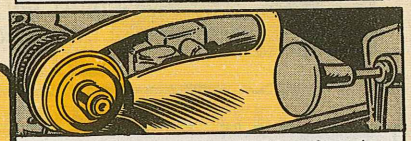
Then get after specific sections of your juice generating jewel.

CONTROLS

OFF-RUN SWITCH—Loose, broken; won't work.

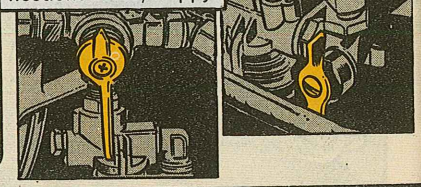
AIR INTAKE SHUTTER—Set wrong for season. (**Summer** setting is used for weather above 32°F; **Winter** for below freezing.)

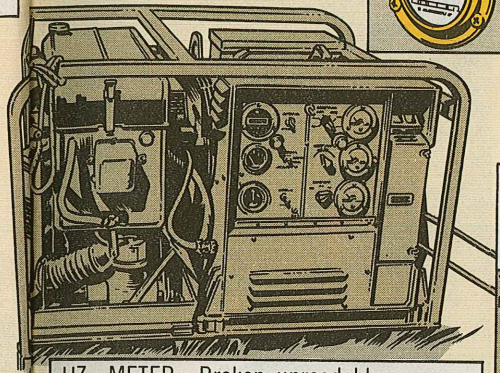
CHOKE CONTROL LEVER—Broken, spring missing, stuck open/closed.



GOVERNOR CONTROL—Stuck, broken, open; not in **govern** position; spring weak, missing, set.

FUEL SELECTOR VALVE—Loose; handle broken or bent; connections loose, drippy.





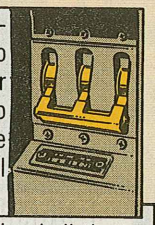
AND INSTRUMENTS

STARTING SWITCH—(unless yours is rope-start) Broken; toggle loose, base nut loose, missing; switch not working.

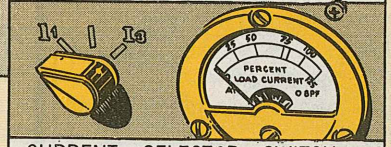
STOP BUTTON—Damaged, sticking.

TIME TOTALIZING METER—Broken, not working.

CIRCUIT BREAKER—Not set according to safety SOP of post or unit; not in tiptop shape (this is one switch you don't fool around with).

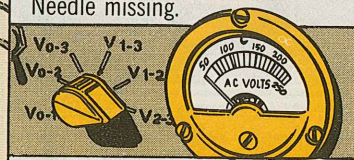


LOAD METER—Red line indistinct, glass or other parts broken.



CURRENT SELECTOR SWITCH—Broken, loose, not working.

VOLTMETER—Glass cover broken; meter out of order, unreadable. Needle missing.



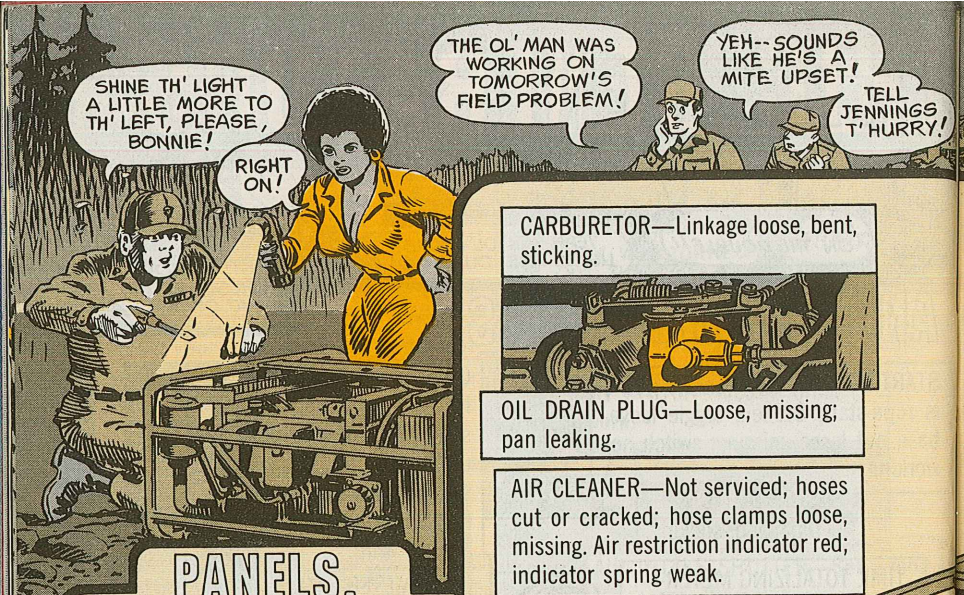
HZ METER—Broken, unreadable.

VARIABLE RESISTOR KNOB—Loose on shaft, not working smoothly (Fixes are DSU!)

VOLTAGE SELECTOR SWITCH—Broken, not consistent with voltage output (when in use).

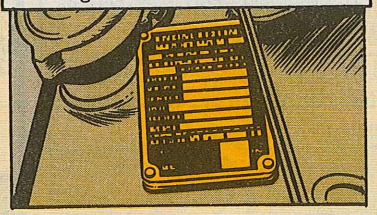
FIELD FLASH SWITCH—Not working right; loose on shaft/panel; broken.

PS MORE

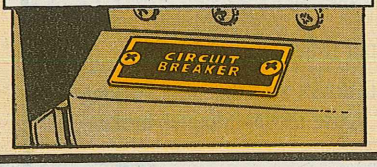


PANELS, PLATES

DATA PLATES—Wrong NSN or model number shown; plates missing or painted over; rivets loose or missing.



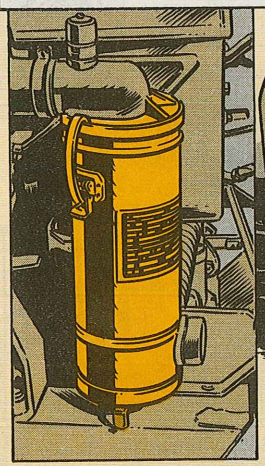
DECALS, PLACARDS—Warning decals or instruction plates missing, covered with paint.

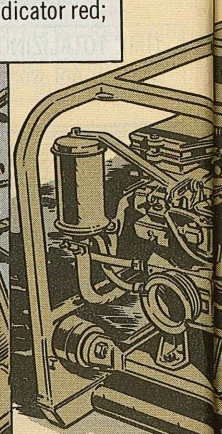


CARBURETOR—Linkage loose, bent, sticking.

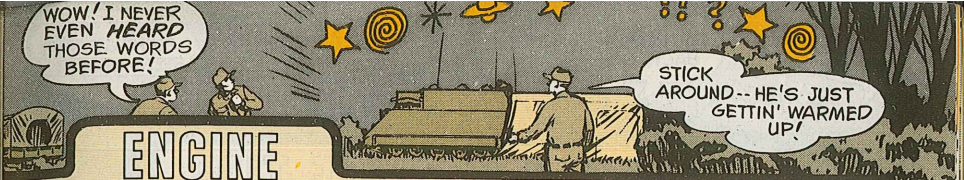
OIL DRAIN PLUG—Loose, missing; pan leaking.

AIR CLEANER—Not serviced; hoses cut or cracked; hose clamps loose, missing. Air restriction indicator red; indicator spring weak.





SEDIMENT BOWL—Dirty, leaking (if you clean it, use a new gasket). Swing bail loose or broken; adjustment screw threads stripped, crossed.



ENGINE

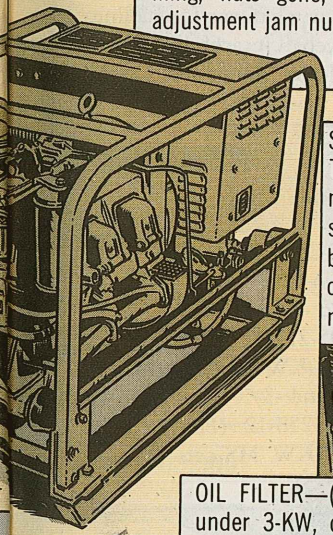
IGNITION—Spark plugs not serviced; spark plug cables cut, loose; shielding frayed.

PREHEATER—Crushed, deformed; hoses cut, crushed.

OIL FILL/LEVEL—Dipstick missing, broken; entire assembly missing, broken. Oil level low.

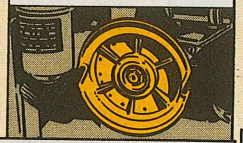
CYLINDERS—Cooling fins broken, gook-loaded; baffles bent, missing; baffle springs gone.

CONTROL RODS—Ball joints jamming; nuts gone; unlubed; bent; adjustment jam nuts rusted, stuck, missing.



FUEL TANK—Lines loose, crushed, leaky; tank dented, cap loose, missing; strainer damaged, missing.

STARTING PULLEY—Throat gashed. Nut on mount bolt loose; slots sharp- edged; flanges bent. (If coil cover is damaged, it's your unit mech's job to fix it.)



GOVERNOR OIL TUBE—Crushed, blocked, loose.

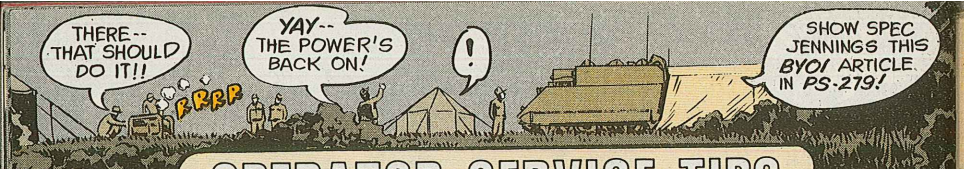
RADIO SUPPRESSORS—Connections lost, cut; damaged; nuts loose, missing.

OIL FILTER—(the very small rigs, under 3-KW, don't have 'em) Not serviced, gasket damaged.

BREATHER LINE—Crushed, missing, disconnected.

EXHAUST—Connections loose, leaking. (If your generator is in a closed space, doublecheck this item. Exhaust gas is deadly.)

MUFFLER—Rusted out, damaged.



OPERATOR SERVICE TIPS

When you change oil, keep grit out of the lube. Leave the innards of your fuel bowl Capital-C clean and change the gasket whenever it's dirty or damaged.

Canvas covers for generators which are part of PU's—power units—are optional. So, if you have canvas, keep a close watch for mildew, rips, tears.

Besides making sure of your ground rod and ground wire, lay an eye on your bonding strap.

Everywhere there's a brace or bracket, check **by hand** to see if the clamps or base nuts are tight.

Water is not an inspection point, but keep it out of voltage regulators, resistors, transformers, chokes, terminals, frequency converters and such. Otherwise, short-circuit burnouts are what you'll get. While you're inspecting, wipe up excess water.

Keep spare fuses. Never foil-wrap the cartridge type!

When you use an auxiliary tank, 5-gal fuel-can, or whatever for fueling, handle and eyeball it carefully. Water, rust, gunk, leaky lines, and sloppy handling can be a blast!

PUBLICATIONS

Some good word in print that you may need will be in pubs like:

TM 5-6115-271-14 (Jun 70) with Ch 1 and 2 for 3-KW Mil Design sets

TM 5-6115-323-15 (Sep 70) with Ch 3, for 1½-KW sets, MD type.

TM 5-6115-332-12 (Aug 70), for 5-KW MD generators.

TM 5-6115-365-15 (May 66) with Ch 1-4, for a whole host of PU-type rigs.

LO 5-2805-203-12 (May 72) for the engines of 3-KW sets, MD type (4A032-1 and -2 engines).

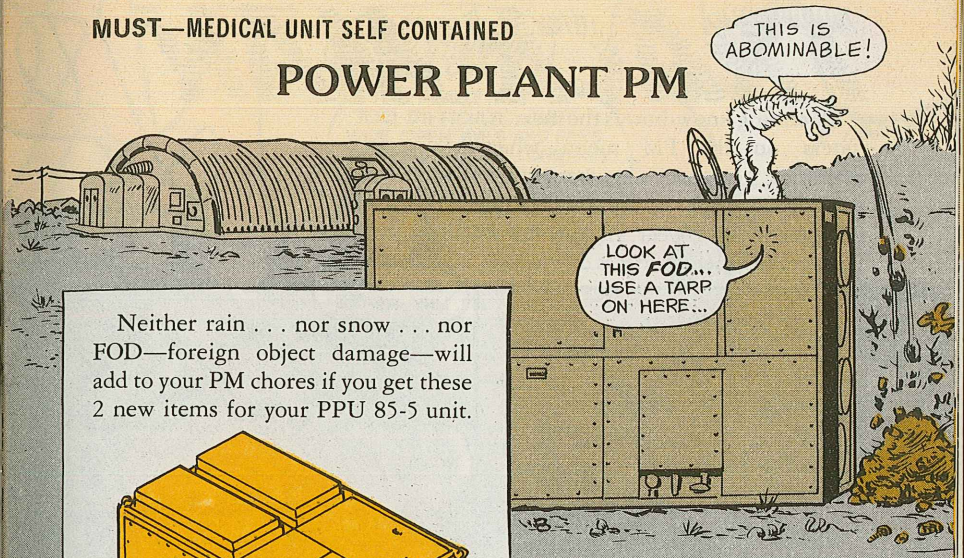
LO 5-2805-257-12 (Feb 72) for engines on 1½-KW Sets, MD (Models 2A016-1, -2, and -3).

LO 5-2805-258-12 (Feb 72), for engines on 5-KW MS sets (Models 2A042-2 and -3).

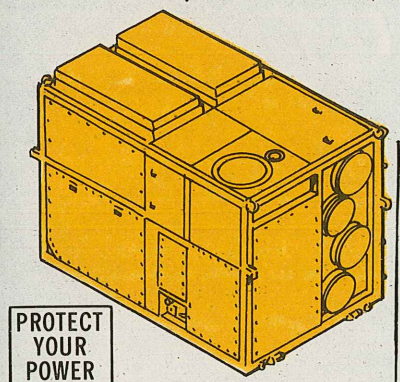
Your smaller power-producers usually don't need lubing, except for some oil-can points. See your -12 manual for exceptions . . . and be sure you **do** check out the lubrication order on sets 10-KW and over.

MUST—MEDICAL UNIT SELF CONTAINED

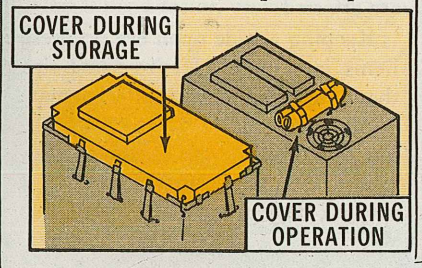
POWER PLANT PM

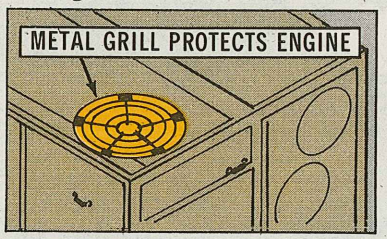


Neither rain . . . nor snow . . . nor FOD—foreign object damage—will add to your PM chores if you get these 2 new items for your PPU 85-5 unit.



Use NSN 6115-00-138-8127-P/N 13220E5242(97403)—to get a canvas tarp that covers the top of the power plant, and NSN 6116-00-149-3497, P/N 13220E5240(97403) to get a metal grill.



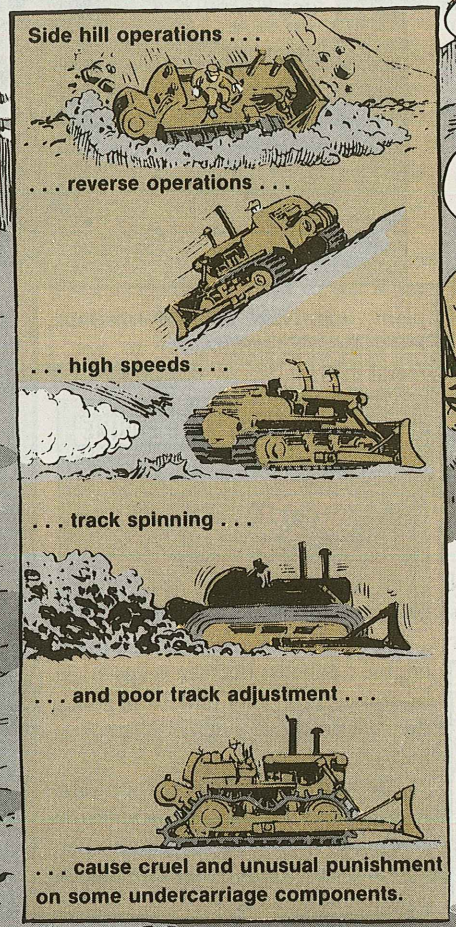


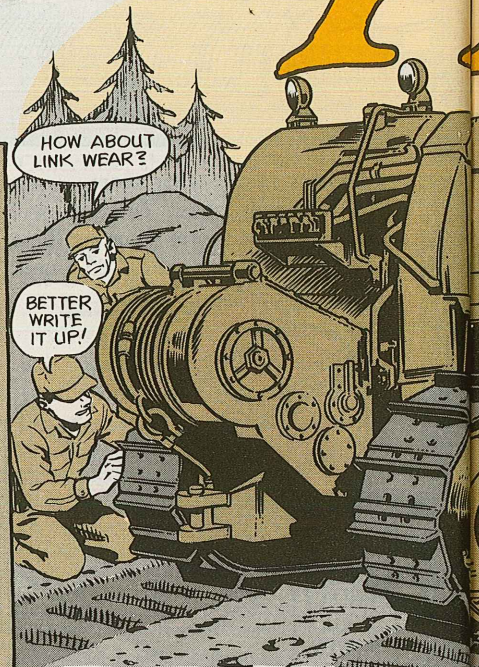
Use the grill to cover the gas turbine engine's exhaust duct. It keeps sticks 'n' stones and other junk from giving the gas turbine engine a case of indigestion.

The canvas tarp keeps out rain, snow, sleet, dirt and such stuff from gumming up the power plant when it's idle—or when you're moving the unit to another site.

TRACK MAN PM

Operating know-how is the meat 'n' 'taters on the PM menu when operating combat engineer track vehicles. Dessert is the savings in equipment parts wear 'n' tear, fewer parts replacement, and less downtime.

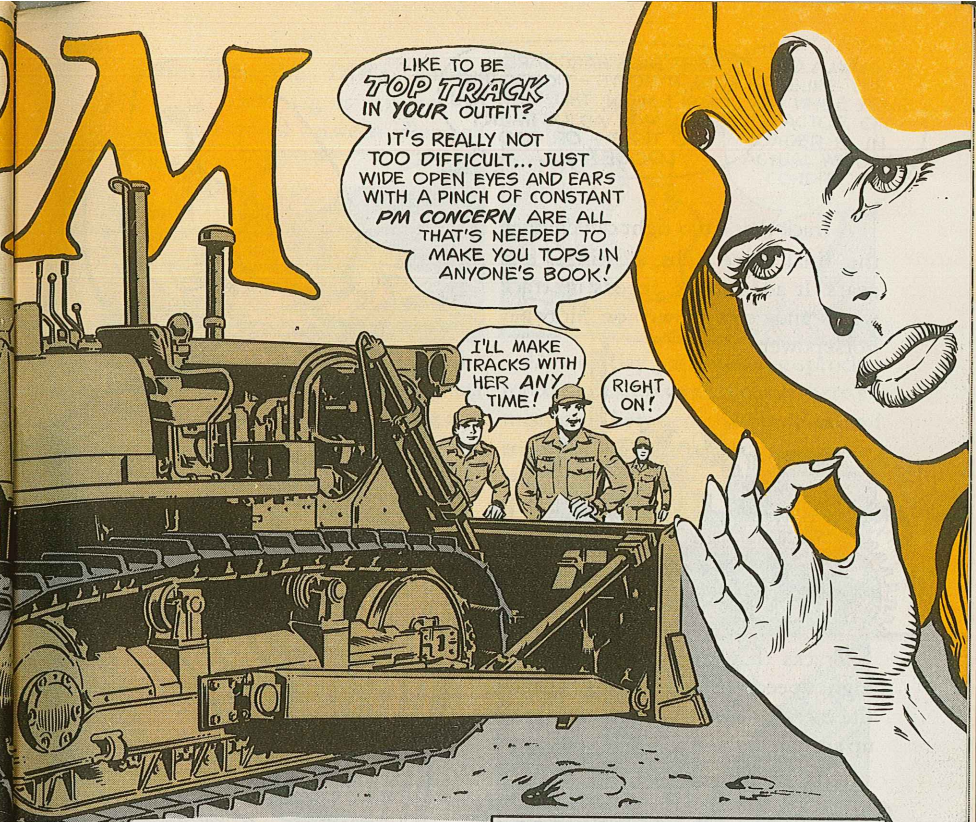




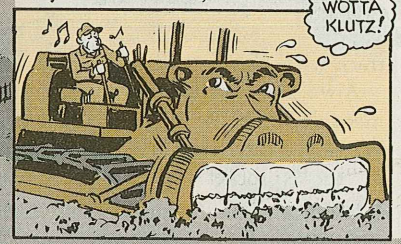
All the undercarriage components—shoes, links, rollers, idlers, sprockets—work together. When one part begins to wear, all the other parts are affected.

Keeping a wide open eye on these items is a must. Here're some tips that'll help you be a better track man.

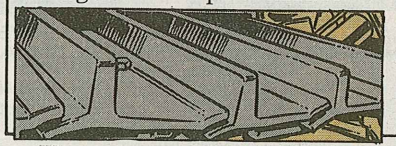
Abusing your loader or tractor—like spinning the tracks too much—causes faster shoe wear. It doesn't get the job done any faster, either. No way!



Working in abrasive material? Keep your PM eyes open 'cause this kind of work is hard on shoe trailing edges. Trailing edge wear on shoes weaken their beam strength and they'll bend faster, easier.



Slippage, impact, and abrasion cause grouser and plate wear.

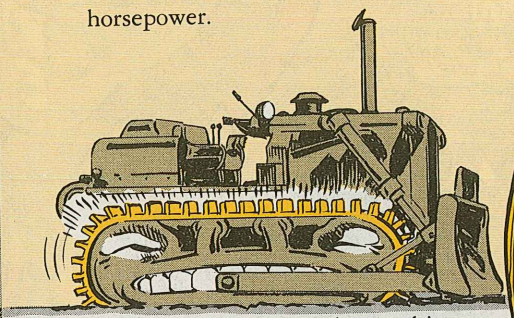


Watch for loose bolts. They'll cause bolt holes to wallow out—get larger. You could lose your tracks.

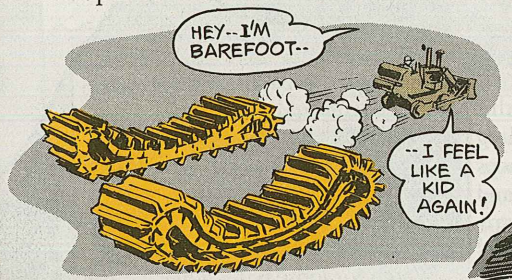
PS MORE

KEEP SHOE HARDWARE - NUTS 'N' BOLTS - TIGHT! THIS DOESN'T MEAN, THO, THAT YOU KEEP TRACK ADJUSTMENT TOO TIGHT - OR TOO LOOSE!

A track that's too tight can damage the final drive hubs, bearings, and gears. It adds stress, speeds up track wear and cuts down on drawbar horsepower.



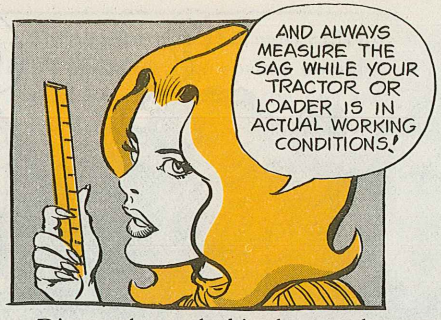
Tracks that are too loose whip at high speeds—slam-banging against the carrier rollers. Your tractor'll ride up and out of the track. This adds more wear on idler and roller flanges, and the sides of the sprockets.



This slam-bang deal spalls the track links, too, but spalled links won't decrease idler or roller life. 'Course, if you just have to finish a job with a loose track, slow down—and stop the track whip biz.

Always adjust tracks for the enviroment and material you're working in. While you can't stop material buildup in the sprocket teeth in certain conditions, you can adjust the track to compensate for this buildup.

F'rinstance, the D7F's normal operating track sag is 1½ to 1¾ inches—measured between idler and front carrier roller. On the D7E the proper sag is 1 to 1½ inches. So, adjust the D7F's tracks for a 2 inch sag and the D7E's to 1¾ inches in "heavy" stuff.

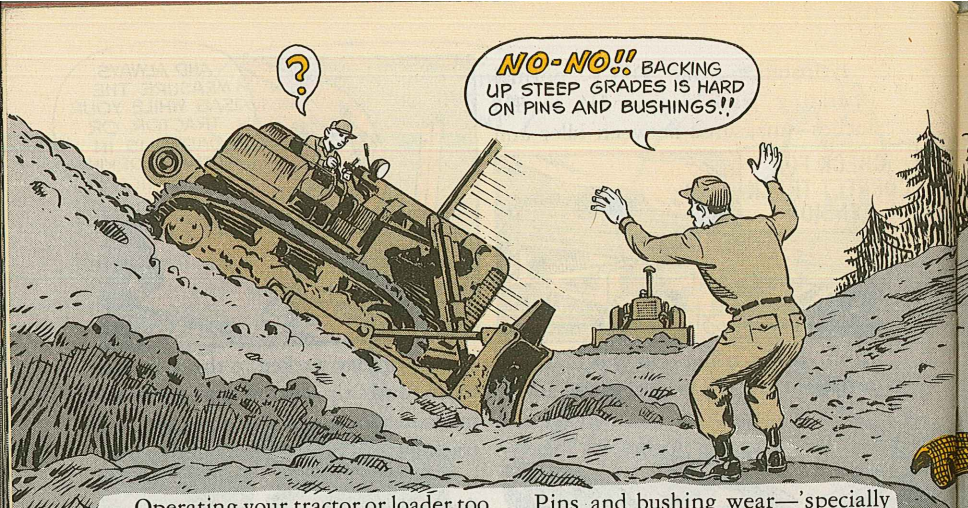


Dirt or clay packed in the sprocket tooth causes tip wear because there's a mismatch between the sprocket and track pitch. This material buildup also increases wear on the reverse side of the bushing.

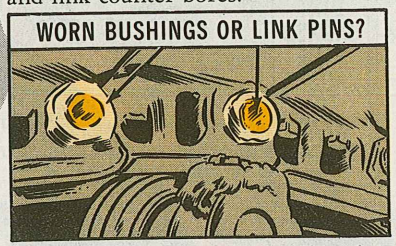
In some soils you'll get equal wear on the link pins, internal and external bushings. You can be sure these items are getting extra wear if the sprocket teeth are unevenly worn.

When you see internal bushing wear, expect to find an extended track pitch. Increased track pitch makes other components wear faster because of the mismatch between the sprocket and track. Sprocket wear will be all the way to the sprocket tips.

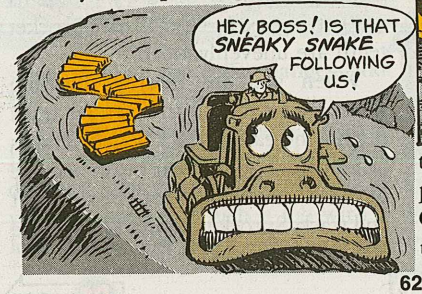
PS MORE



Operating your tractor or loader too long with worn link pins and bushings causes severe wear on bushing ends and link counter bores.

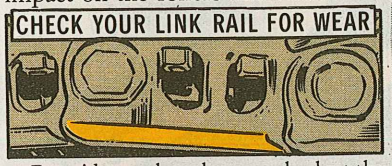


"Snakey" tracks are sure signs that you're getting some wear on bushings and links. Or, the wiggle-waggle tracks could be from links prying apart when you're operating in rocky soil.



Pins and bushing wear—'specially on the reverse drive side—is common if you operate your tractor at high speeds or in reverse under load. Like maybe push loading or backing up steep grades.

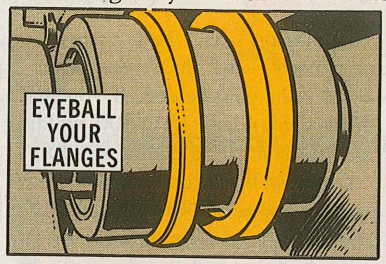
Take a good look at the link rail. Got any "dips" in it? They're caused by impact on the rollers and idler.



Be wide awake when you look at the track roller guards. Keeping 'em in

tip-top shape adds operating hours to pins, flanges, sprockets, and idlers. Changes that snakey driving pattern to a straight line, too.

Doing a lot of side hill work calls for extra under-carriage spying. Look for special wear patterns on the idler and roller flanges. If your track roller frame

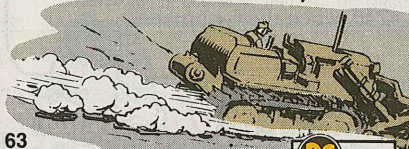


is misalined or the wear strips or shims are worn out, you'll get extra idler flange wear.

Out-of-position idlers don't make for long life, either. If you're dozing, put them in the low position; if you're using the drawbar, use the high position.

Track guiding guards keep the track lined up with idlers, rollers, and sprockets. So-o-o-o, watch those guiding wear strips closely. They contact the pin ends as pins and internal bushing wear occur. If the guiding guard wear strips hit the links you've got another wear area to watch.

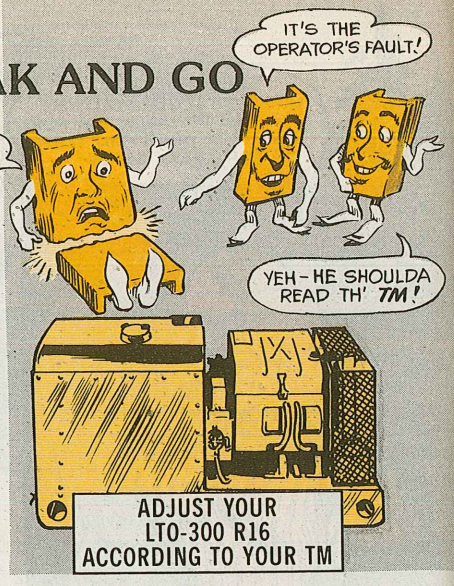
Making like an Indy driver . . . spinning your wheels, er tracks . . . cowboying around with a 16-ton tracked vehicle will get you a lot more belly aching extra maintenance. Know your track PM for loaders and tractors. Then operate those "tracks" with common sense and a steady foot.



PS END

WELDER'S WOE . . .

WHEN SEAMS BREAK AND GO



Separation is bad news to matrimony—and disastrous when it hits a joint you welded. If you use a Military Standard LTO-300 welding rig, you have to be double careful.

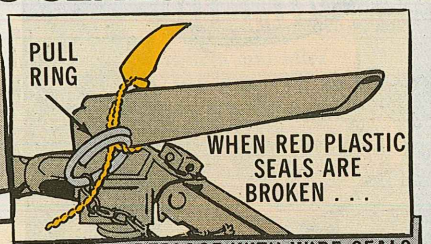
You just have to have it adjusted exactly right for it to run right. Otherwise, you lose your arc . . . or your seam cracks.

So read and heed Para 2-11a(7) and (8) in Ch 2 as carefully as you do the rest of Para 2-11 in TM 5-3431-221-15 (Jan 70). That's where the vital word is.

CO2 FIRE EXTINGUISHER . . .

PLASTIC SEALS?

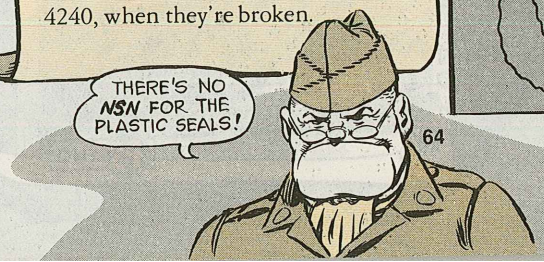
Dear Half-Mast,
We received some new CO2 fire extinguishers with a red plastic seal holding the pull pin in.
Do we replace these plastic seals with wire seals?
CW2 R.F.E.

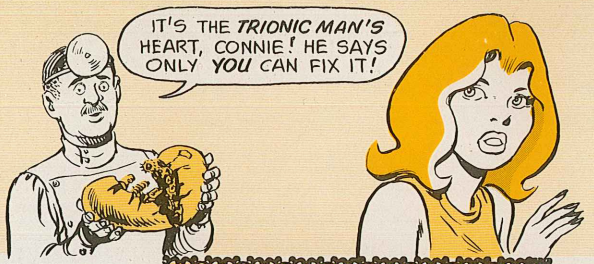


Dear Mr. R.F.E.,

There's no real need to.

Those seals are manufacturers tamper seals. They do the same job as the wire ones. They're easier to install—no crimper needed. Replace 'em with wire seal, NSN 5340-00-391-4240, when they're broken.





Date a DA Form 2410

You aircraft and missile types working with DA Form 2410 Component Removal and Repair/Overhaul, beware! Take a look at the left-hand corner. The forms dated Oct 74 are no good. Tear 'em up. Go with the 1964 editions of the DA 2410. Also, check around. A new issue dated Aug 75 is out—and it's good. Before you start filling a DA 2410, eye that date. Rip up any Oct 74 forms and reach for a 1964 or Aug 75 form.

GOER Caution

Careful, GOER Drivers! Use your accelerator pedal—not the governor lever—for all land and sea travel. That lever's only for fuel dispensing and wrecker lifting operations. Be safe, not sorry—stick to the pedal.

Property Book Change

If you received DA message DALO-SMS-R 021305Z in September on Chap 2 supply procedures in AR 710-2, trashcan it. That message has been rescinded.

DA message DALO-LES, 281300Z Nov 75 has new instructions.

It changes para 2-7d(9) of AR 710-2 to say: "File property book pages by LIN regardless of the authorization document. Put items with no assigned LIN in alphabetical order. Then, put the LIN and the no-LIN items together alphabetically."

When the first 2 letters of the LIN match the first 2 letters of a no-LIN item's name, you use the LIN item page first.

Keep your organization property book separate from the installation property book.

TM 38-750 Appendix Change

Getting ready to send out a TM 38-750 report or a DA Form 2407 EIR? Hold one!

There's a message change to Appendix B mailing addresses in TM 38-750.

DA message DALO-SMM-F R 0315267Z Dec 75 says take primary code N with secondary codes A thru H and J (under the equipment category code and line number column) and primary code P with secondary codes A thru G from:

Commander
U.S. Army Troop Support Command

and add them to:

Commander
U.S. Army Tank-Automotive Command
Warren, MI 48090

Both addresses appear on page B-2.

The change in addresses matches the change in equipment responsibility from one command to another.

☆U.S. GOVERNMENT PRINTING OFFICE: 1976 — 657-631/7

Would You Stake Your Life right now on the Condition of Your Equipment?


KNOW..
BEFORE YOU GO!
I HADDA HUNCH THIS MIGHT HAPPEN WHEN I HEARD THAT KLUNKING NOISE JUST B'FORE I TOOK OFF!
MATTER O' FACT, I ALMOST PUT IT DOWN ON MY 2404!...
OK... COME ON, LEND A HAND!
SOMETHING WRONG? Report it on your DA Form 2404 . . . GET IT FIXED!
DA FORM 2404