

Issue 260

PS

July
1974

THE PREVENTIVE MAINTENANCE MONTHLY



AHEM--ER, UH-- WHY
DO YOU ASK, SARGE?

YA HAVEN'T
TOUCHED ONE
AERIAL TARGET
IN 5,000 ROUNDS!
ARE YOU SURE
YOU'RE USIN'
YOUR RADAR,
RADCLIFFE
?

RADCLIFFE
WAS COUNTY SKEET
CHAMP BACK HOME
AND THINKS RADAR
IS FOR AMATEURS!

MURPHY
ANDERSON

BYOI
SP VULCAN
See Pg 2.

RIGHT ON! SARGE
KNOWS RADCLIFFE'S
RP INDICATOR LIGHT
HASN'T FLICKERED
EVEN ONCE ALL
MORNIN'!

SAVE FUEL

You hear it everywhere:

"Save fuel!"

There is good reason: We've got a shortage, and every drop you save now means fuel will be available for a longer time in the future.

WHAT CAN YOU DO? PLENTY.

Drive slower. A quarter-ton, for example, uses 26% more fuel per mile at 50 MPH than at 25 MPH.

BY SLOWING DOWN FROM 50 TO 25 MPH, I SAVE 26% ON GAS...

Run your truck in the highest gear and at the slowest speed without lugging the engine.

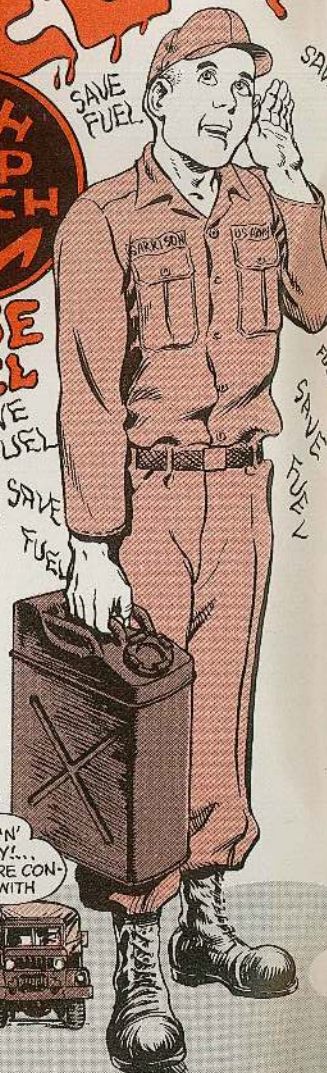
Idle less. Chop the engine at all but the briefest stops.

NO IDLING! I ALWAYS CHOP THE ENGINE!

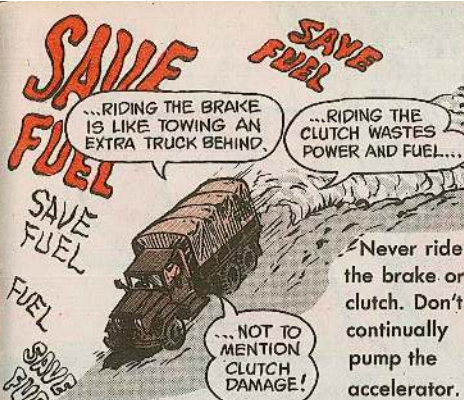
Drive calmly. No jackrabbit starts, speedups or sudden stops (except emergencies). Keep even speeds. Slow down as you approach traffic lights; you may not even have to stop.

WITH TOP NOTCH PM

SAVE FUEL



SLOW 'N' STEADY... NO MORE CONTESTS WITH YOU, BUB!



Never ride the brake or clutch. Don't continually pump the accelerator.

Get organized. Combine several runs into one. Kill off unnecessary driving. Walk.

No overloads. No underloads, either. Fit the vehicle to the job.

Be sure your engine is tuned up.

Keep filters clean or change them.

LOW PRESSURE...

Rotate tires on schedule. Even the wear. Keep 'em inflated to the TM figure.

Do these things, and you'll not only save fuel, you'll be doing the kindest Preventive Maintenance on your truck.

* * *

P.S.—You can apply the same tips to your own wheels. Good PM. Save fuel. Super!

PS

THE PREVENTIVE MAINTENANCE MONTHLY

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ISSUE No. 260 JULY 1974

FIREPOWER

2-19

SP Vulcan	2-9	M16A1	18
M551 Sheridan	10-11	TSQ-38 Cooler	18
Electrical		M40 RR	19
Connectors	12-13	Plastic Targets	19
Hawk Notes	14-16, 17		

GROUND MOBILITY

20-23

U-Joints	20-21	2½-Ton Steering	23
Gama Goat	22	M123A1C	23
M37B1	22		

COMBAT SUPPORT

Heavy Construction Equipment Tire Care	24-27
New Publications	28

AIR MOBILITY

37-59

Electronic Periodic	37	U-8	40, 45
F O D	37	Tire Tips	40, 41
AN/VRC-12 Radio	38	CH-47	42, 43
AN/ARC-114 Radio	39	OV-1	44
General Aircraft Mechanic's TK			46-59

COMMUNICATIONS

60-64

Radio Mounts	60-61	AN/TPS-25 Radar	62-64
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PS wants your ideas and contributions, and is glad to answer your questions. Name and address are kept in confidence. Just write to:

MSG Half-Mast
PS Magazine
Lexington, KY
40507

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BE YOUR OWN INSPECTOR.

FIREPOWER

SP

FEAR NOT, FAIR LADIES! I, THE GREAT VULCAN, WILL PROTECT YOU!

Your self-propelled 20-MM M163 Vulcan takes real pleasure living up to its ancient name and reputation.

It's a rootin', tootin', shootin' master of fire and metal. It can toss up a portable wall of lead!

Providing, of course, you always pull top-notch PM for sure fighting readiness. Which means keeping up on all the main-

tenance instructions in the Grand Old Epic: TM 9-2350-300-10 (Mar 71) with Ch 1, 2 and 3.

Here're some special problem spots to eyeball before a heavy mission. Faults in **bold type** are extra crucial to your weapon.

VULCAN SYSTEM

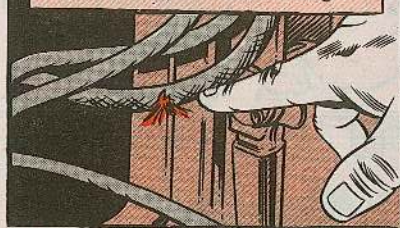
HOLD IT, VULCAN! THAT'S NOT THE PM PROGRAM WE HAD IN MIND!

RIGHT ON, HE NEEDS THE THE 6-SHOT VULCAN FOR A FACT! TOO BAD IT'S...

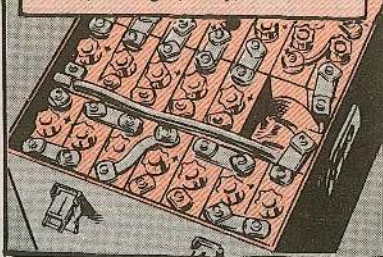
LOGBOOK—Required forms missing, filled out wrong; DA Forms 2408-1 daily and 2408-14 entries wrong or don't jibe with status of weapons system; **serious faults not corrected.**

GENERAL—Dirty, gunked-up; **parts loose, bent, worn, broken, missing;** needs paint; rusted; **needs lube**—see LO 9-2350-300-10 (Sep 73); ID and warning plates dirty, blurred, rusty, missing.

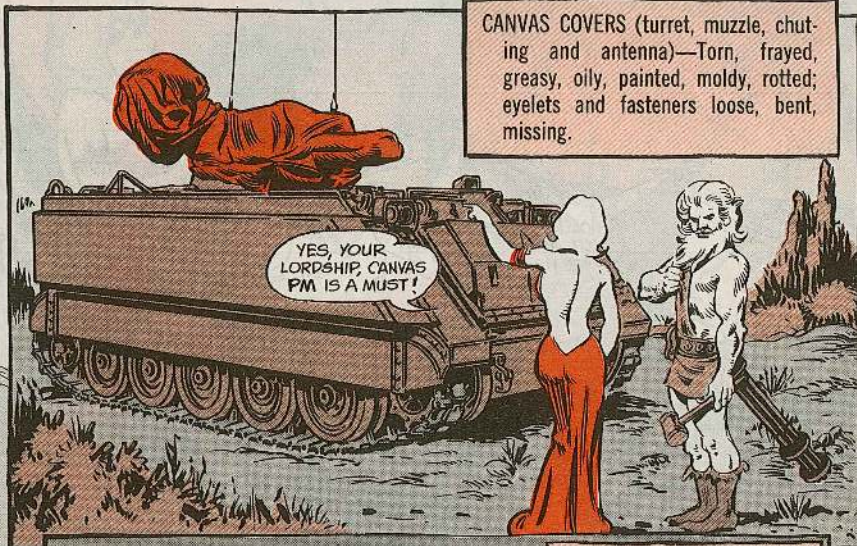
ELECTRIC CABLES AND WIRES—Loose, cut, frayed, greasy, oily, painted; connectors bent; connected wrong.



NICKEL-CADMIUM BATTERIES—Weak, dead, damaged, dirty, corroded.



CANVAS COVERS (turret, muzzle, chuting and antenna)—Torn, frayed, greasy, oily, painted, moldy, rotted; eyelets and fasteners loose, bent, missing.

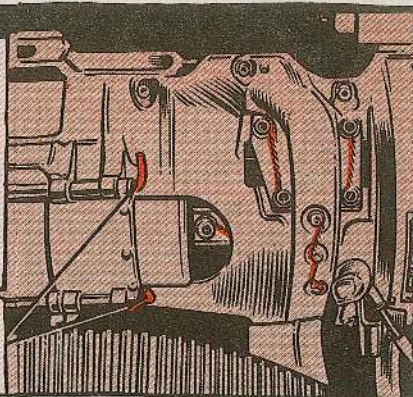


MUZZLE CLAMP ASSEMBLY—Unlocked; positioned wrong.



MID-BARREL CLAMP—Unlocked; positioned wrong; cotter pin broken, missing.

SAFETY WIRES—Missing, broken, bas-sackwards on firing contact assembly, cannon indexing pin, unlocking cam bolts, front track bolts of the rotor assembly, gun drive motor cable, case chute adapter, knurled nuts on recoil adapters and flexible drive shaft, telescope and night sight mounts.

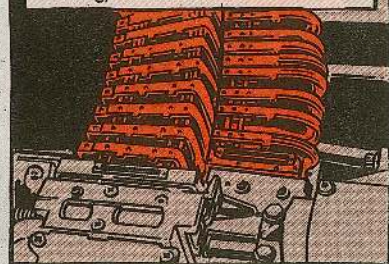


REAR HOUSING COVER ASSEMBLY—Quick release pins bent, broken, missing.

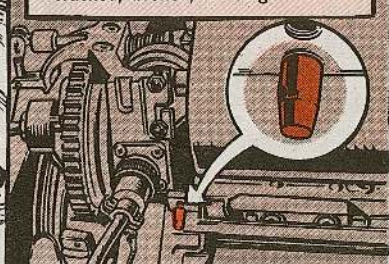
RECOIL ADAPTERS—Quick release pins bent, broken, missing; safety cables broken, missing; adapter bolts loose, damaged, missing.



FEED AND RETURN CHUTES—Parts bent, broken, missing; loose, mounted wrong; FOD in chutes.



DECLUTCHING FEEDER PINS—Bent, cracked, broken, missing.



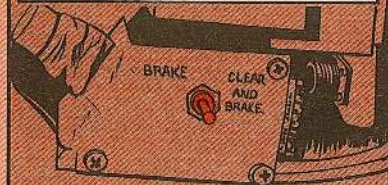
ELECTRICAL CONNECTOR (declutching solenoid)—Loose, broken, corroded; unhooked.

DID YOU CHECK YOUR ELECTRICAL CONNECTOR? IT'S LOOSE AND BROKEN!





CLEARING SOLENOID—Won't clear right (check by using the clear and brake switch).

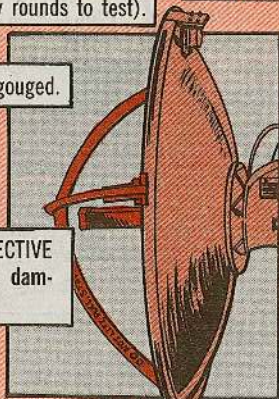


CANNON—Won't cycle rounds manually (always use dummy rounds to test).

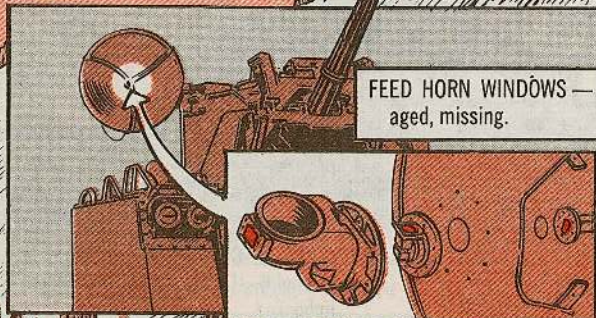
GUN SHIELD AND CASE CHUTE—Bent, damaged, missing; mounted wrong; quick release pins bent, broken, missing.



REFLECTOR—Dented, gouged.



FEED HORN & PROTECTIVE BRACKET—Gunked-up, damaged, out of line.



LOOK! THE FEED HORN IS ALL GUNKED UP!

FEED HORN WINDOWS—Loose, damaged, missing.



HERE THEY COME AGAIN! CLOSE THE HATCH -- QUICK!

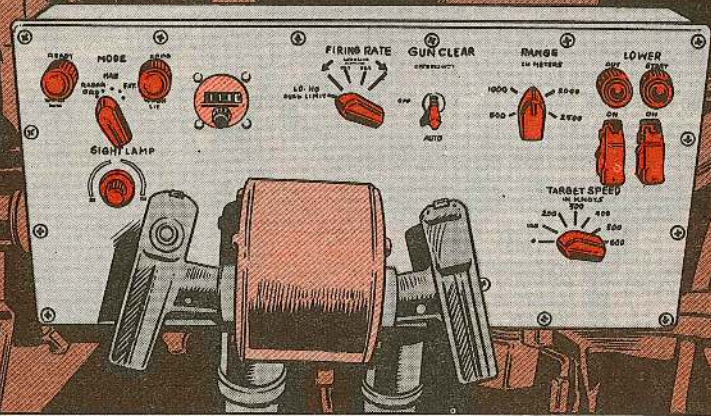
SORRY, VULC, OLD BOY -- THE SWITCHES ARE STICKY -- NO PM PERFORMED ON 'EM FOR EONS!



HATCH PROTECTIVE CIRCUITS—Won't perform as advertised; switches sticky, worn out or wires broken.

CONTROLS AND INDICATORS—**Damaged, broken;** knobs and handles loose, cracked, broken, adjusted wrong; missing; viscous damper hampered; control handles sticky; elevation and azimuth deadbands adjusted wrong; cockpit lamp won't light; **azimuth indicator won't work** or has cracked or broken lens (FSN 5355-211-8146); burst limits, cannon, feed system or clearing circuitry **won't work** after a 10- or 30-round cycle of dummy ammo.

...NOT TO MENTION THE PROTECTIVE BRACKET!

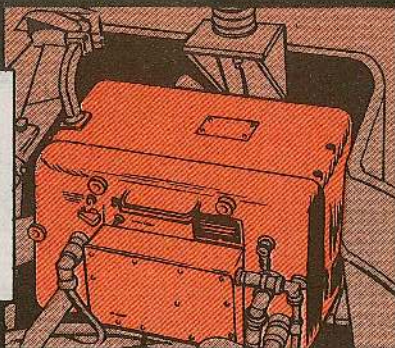


ELEVATION AND AZIMUTH CONTROLS—Balky, movement rough; limit switches erratic; motor brakes faulty.

RADAR—Mid-range calibration and clutter lock-on tests fall short; RF power indicator won't light up when radar is radiating.

ANTENNA—Won't follow sight reticle or position along the gun axis.

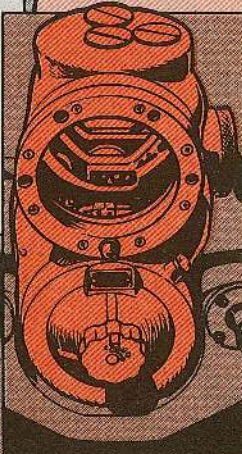
RADAR UNIT 2—Dirty, gunked-up; loose, broken, missing parts; loose, cut, frayed wires; interlock defective; RF power won't deflect when radar is radiating; Klystron tuning tool broken, missing; blower dead; air filter dirty, clogged; thumbscrews not snug-tight on closed front panel.



RADAR UNITS 3, 4 & 5—Radar rack pin missing; wet, dirty, gunked-up; parts loose, damaged, missing; frayed, broken electrical cables; Unit 5 blower won't work; Unit 5 air filter dirty, clogged, damaged.

...LAST TIME
I'M GOING TO
GET CAUGHT
WITH MY PM
DOWN!

SIGHT—Lens dirty or moist on inside or outside; gyro defective; sight reticle won't light when sight reticle knob is rotated either way; sight sun filter stuck, sluggish or cracked; mechanical caging device won't work right.



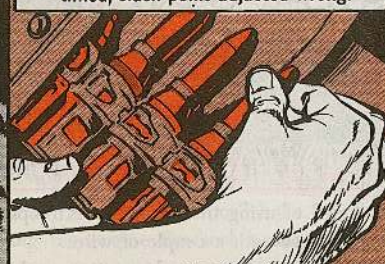
GOOD
PM WILL
KEEP YOUR
VULCAN
ALWAYS IN
GREEN
CONDITION!

SIGHT CURRENT GENERATOR — Won't light GOOD WHEN LIT lamp.

GASKETS ('specially on sight current generator and distribution box) — Damaged; installed wrong.

CONVEYOR DETECTION SWITCHES (Micro switches on EXIT cover assembly) — Don't work right.

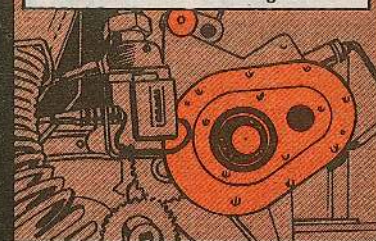
AMMO FEED SYSTEM (use dummy ammo to test)—Drum loads wrong; feed system and cannon can't be timed; slack point adjusted wrong.



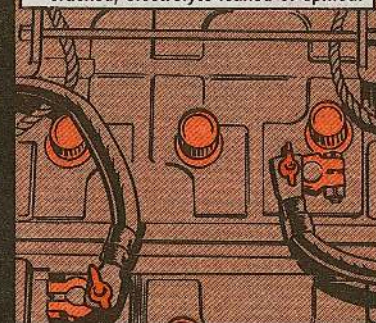
BASIC ISSUE ITEMS— Damaged, broken, missing.

IF YOU
VULCAN
TYPES WANT
TO REALLY FORCE
AHEAD--USE
THE TMS!

SHIFT PIN HANDLE AND DRUM DRIVE ASSEMBLY—Don't work right.



VEHICLE LEAD-ACID BATTERIES—Connected wrong; terminals and connectors damaged, dirty, corroded; cases cracked; electrolyte leaked or spilled.



SLIP RING AND COVER — Loose, damaged, missing.

DA FORM 2408-4 ENTRIES — Not up-to-date; number from Rounds Cycled counter not recorded right; Services not recorded.

PUBS — TM 9-2350-300-10
(Mar 71) with Ch 1, 2, 3
TM 9-2350-300-20/1 (Aug 71)
with Ch 1-4; -20/2 (Apr 71)
with Ch 1
TM 9-2350-300-20P (Aug 71)
TM 9-2350-300-ESC (Jan 72)
LO 9-2350-300-10 (Sep 73)

M551 SHERIDAN

GATHER 'ROUND, YOU SHERIDAN TYPES, FOR A FEW TIMELY BITS O' PM INFO...

CONNIE'S AN M551'S BEST BUDDY!

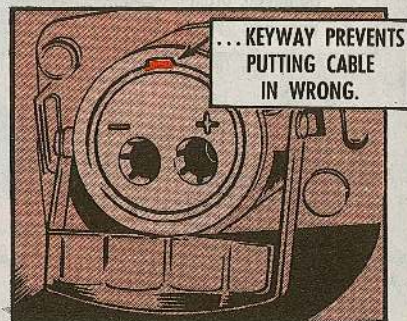
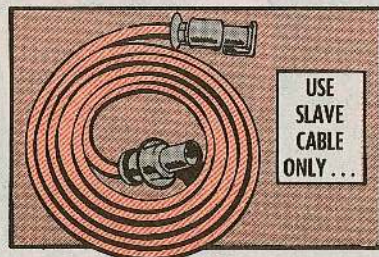


Stead of using the cables some troops try to slave with a couple of wires.

The cable plug is made so it can only be put in the right way. You get no such protection with two wires.

These simple little tips will improve your maintenance smarts on the M551 Sheridan:

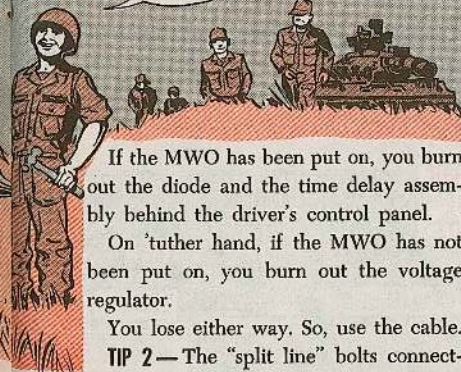
TIP 1—To slave the M551 use a slave cable—the official name is cable assembly, special purpose, electrical, FSN 4910-474-9135. You'll find it in your No. 1 and No. 2 Common Tool Kits.



If you connect the wires wrong and get a reverse polarity, what happens will depend on whether or not MWO 9-2350-230-30/10 has been applied.

SMARTS

WOW—
SOME
BUDDY!



If the MWO has been put on, you burn out the diode and the time delay assembly behind the driver's control panel.

On 'tuther hand, if the MWO has not been put on, you burn out the voltage regulator.

You lose either way. So, use the cable.
TIP 2—The "split line" bolts connecting the engine flywheel housing to the



transmission torque converter housing are loosening and causing failures. This is also true for the torque converter stud nuts which connect the torque converter flex

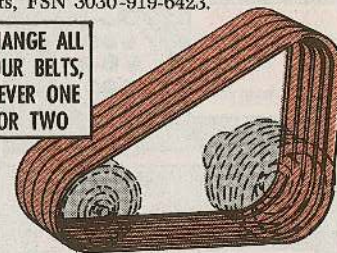
plate to the engine flywheel. If you think yours are loosening, get your direct support mechanic to tighten 'em up for you. He knows the torque values.

It's hard to tell if they're loose or not so have your support check 'em out to make sure.



TIP 3—"All or nothing." That's the word on replacing fan belts on your M551. If you're going to do any replacing at all you replace the entire set of matched V-belts, FSN 3030-919-6423.

CHANGE ALL
FOUR BELTS,
NEVER ONE
OR TWO



If you try replacing just one or 2 belts at a time you can wind up with a lot of vibration in the fan area of the engine. This can wear out components before their time...

...SO MONEY
SAVED BY NOT
PUTTING IN A
WHOLE SET OF
FAN BELTS IS
POOR ECONOMY.



FOR SATISFYING HOOK-UPS... A LITTLE

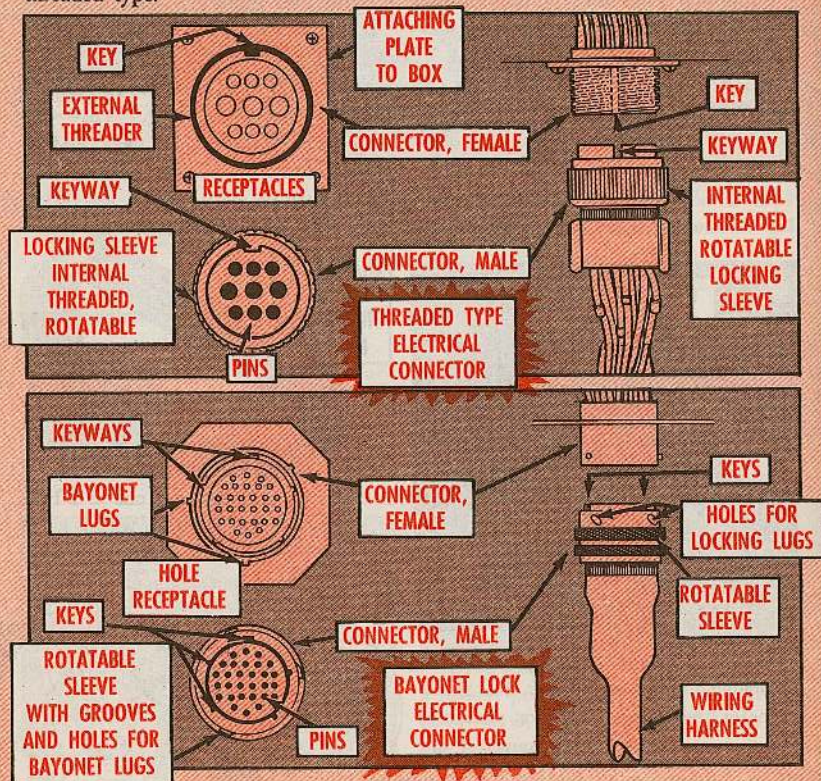
Here's a fast review to shine up your know-how on using turret and cupola electrical connectors in your combat vehicles.

Some of these connectors are hard to see or reach but it's worth while going slow and careful so you connect 'em right.

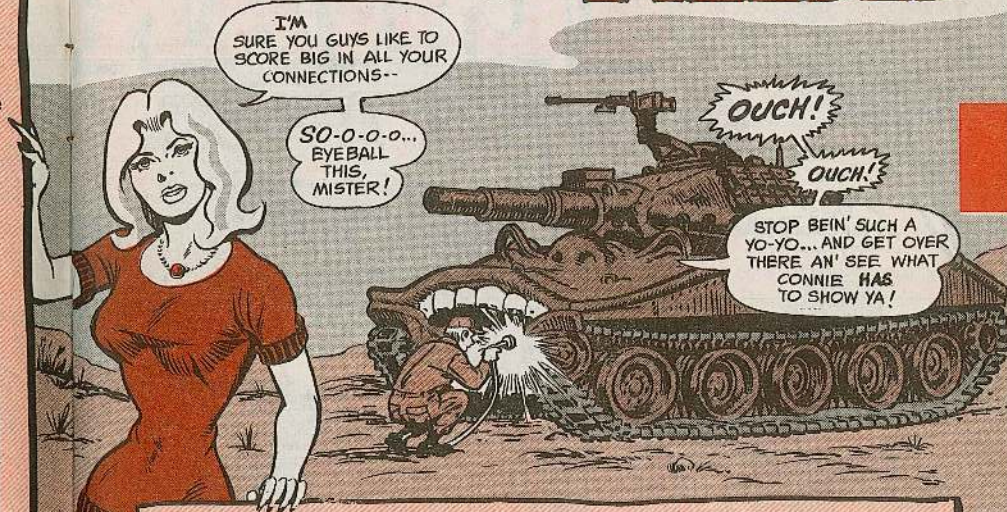
Each connection has 2 parts, a male section with pins that stick out and a female section with holes to receive the male pins.

You have to get these pins and holes lined up right. If you force, jam or twist the male and female parts in making a connection, you usually wind up with bent, broken, shorted or damaged connections.

Most of your electrical connectors in the turret area are either bayonet lock or threaded type.



Finesse NEEDED



You can tell which is which by feel. Both types have either a key or a keyway at the straight up (12 o'clock) position, but the bayonet lock generally has 4 keys or mating keyways in addition to the one in the 12 o'clock position.

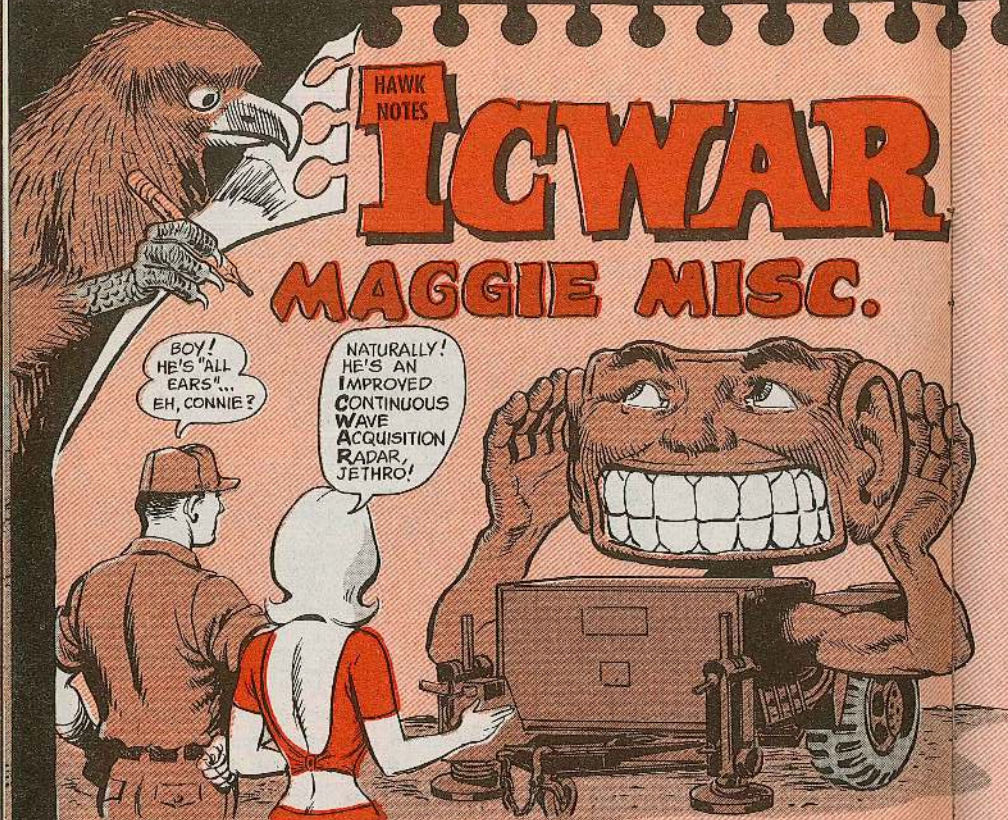


With either the bayonet lock or threaded type, you start by gently mating up the keys and keyways at 12 o'clock. Complete the connection by tightening the locking collar or sleeve.

If you have a big enough exposed surface on each section you can paint an alignment line on both the male and the female parts. It won't help any to paint the locking collar or sleeve since these rotate and won't give you a true alignment. Instead, use the rubber molding, metallic clamp, or side of the box being connected.

A small adjustable mirror with handle will also help you in some cases. (Several different ones are listed on pages 3.179-3.180 of Fed Cat C5120-IL-A-Apr 73.)





FACT: Common sense and a sprinkle of PM can do wonders in extending magnetron tube life in the RF modulator-oscillator of your Improved Hawk AN/MPQ-48 (ICWAR) radar set.

FACT: Ditto for other parts and components of the ICWAR.

ANOTHER FACT: If you heed the points mentioned here, in addition to observing the warnings, cautions and notes in TM 9-1430-528-12-1 (Aug 72), you can more than double the life of the magnetron tube. The TM's Change 4 is especially important.

Here's an information smorgasbord on the ICWAR that'll keep you in business:

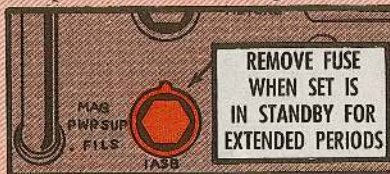
CIRCUITS

The modulator-oscillator should always be fired in accordance with TM procedures.



Always follow the TM steps for the test, check or adjustment you're making.

And . . . once the magnetron has been started, never turn it off unless it has been operating for at least 15 minutes (the only exception would be an emergency).



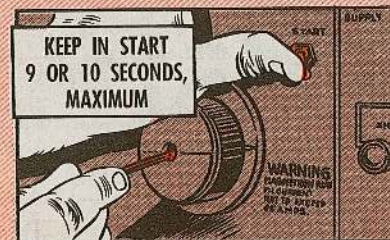
Another magnetron-saver: Remove the Magnetron Filament fuse and turn the magnetron switch (on the C-I panel) to the OFF position whenever you leave the set in standby or false radiate for more than 5 minutes.

When ready to start the maggie, insert the maggie filament fuse and turn the maggie switch to ON for about 5 minutes. That insures proper warm-up.

You can add life to the maggie, too, in this way: Do not de-energize the radar to make routine checks!

START-RUN CURRENT CHECKS

When adjusting the magnetron filament current, the book tells you to hold the



START-RUN switch in the START position for no longer than 10 seconds. Naturally, that prevents damage.

The life of the maggie is greatly affected by the number of times it is fired or started. Usually, a small portion of the cathode element is removed on each firing. So, to extend its life, hold the maggie starts to a minimum.

SEAT IT RIGHT

In seating the RF modulator-oscillator, eyeball Chap 5 (and Change 4) of TM 9-1430-528-12-1 for the proper procedure.

It's important to seat it fully.

PC CARDS

Never mark the coded modules (printed circuit cards) in the signal processor of the ICWAR (never mark 'em wherever you find 'em).

The cards are no longer throw-away items. You turn 'em in to support.

MARKING CARDS IS A NO-NO . . .



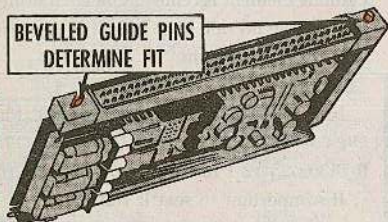
Marking them (with anything) can damage the leads. At the least, the cards must be cleaned . . . and that adds to repair costs.

NEVER MARK THE PC CARDS!



You can also prevent damage by not forcing the cards when you install 'em. They go in easy, or they don't go in at all.

BEVELLED GUIDE PINS DETERMINE FIT



Guide pins on the cards are bevelled for specific jacks. If a card won't go in a jack, reverse it. If it still doesn't fit, you've got the wrong card.

DUMMY LOAD

The quick-disconnects on the dummy load can drive you bananas if you've never taken them off.

Because...

To release the outside quick-disconnect, you must pull on the sleeve.

To release the inside one, you push its sleeve.

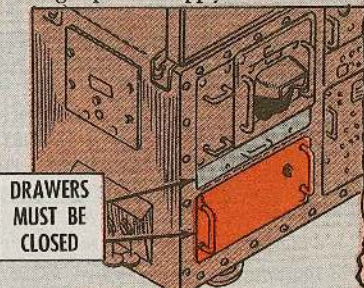
PUSH INSIDE SLEEVE



PULL OUTSIDE SLEEVE

CHASSIS DRAWERS

It's a good point to keep all chassis drawers fully closed when operating the ICWAR, but that's especially true of the high-voltage power supply drawer. If

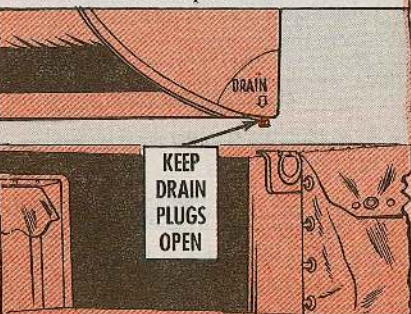


DRAWERS MUST BE CLOSED

that's even slightly open, the interlock switch won't engage and the power supply won't work.

DRAIN PLUGS

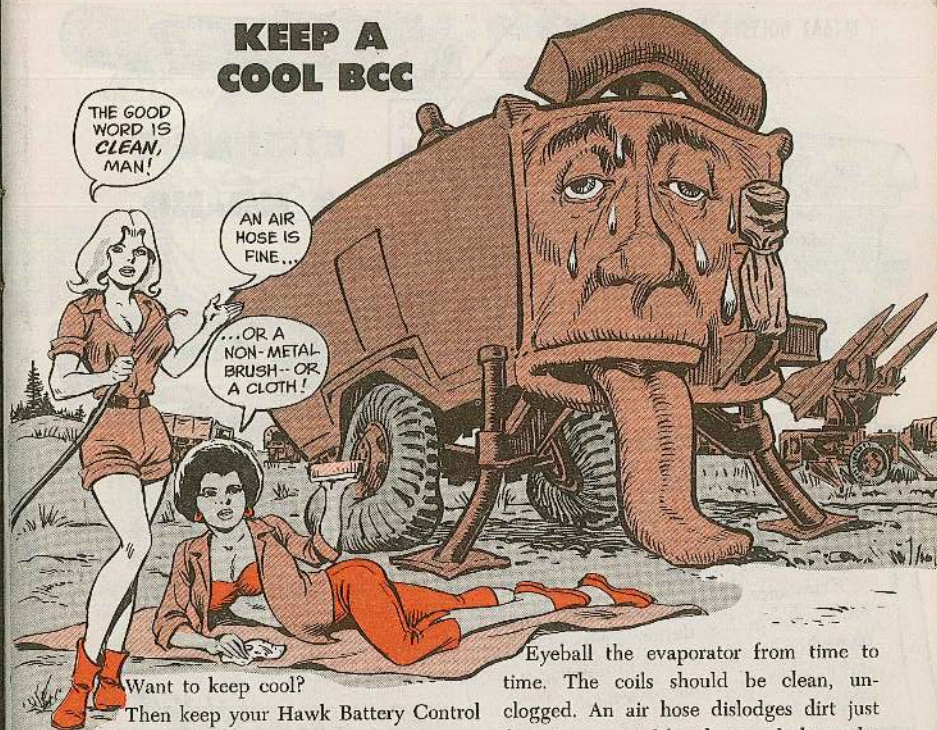
There're 6 screw-type drain plugs on the lower edge of the antenna which have to remain open in order to drain off moisture. So leave 'em open.



KEEP DRAIN PLUGS OPEN

They may look like they should be snugged up, but don't be tempted.

KEEP A COOL BCC



Want to keep cool?

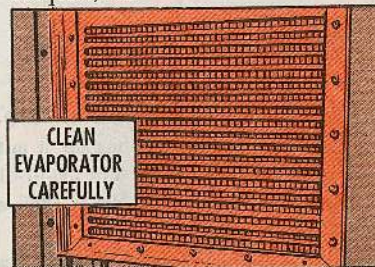
Then keep your Hawk Battery Control Central (BCC) air conditioner clean.

Start with the air intake filter and evaporator fan. Check them daily in sandy or dusty areas, and clean them as necessary.

eyeball the evaporator from time to time. The coils should be clean, unclogged. An air hose dislodges dirt just fine. A non-metal brush or a cloth can be adequate, too.



CHECK FILTER DAILY



CLEAN EVAPORATOR CAREFULLY

The important thing is not to dig out the dirt with a screwdriver or such, since that damages the coils.

By keeping the filter and evaporator clean, you have greater cooling capacity.

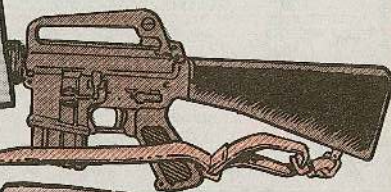
M16A1 BOLTS...



USE
THE
TAG

Dear Half-Mast,
Is it OK to etch the M16A1's serial number on the bolt or bolt carrier to stop a mix-match with the lower receiver—and a trip to DS for a new headspace check? Some commands call for tagging the bolt when it's removed from the rifle. But tags get lost or damaged.

SGT W. T.



ETCHING'S A NO-NO

Dear Sergeant W. T.

Scratch that etching urge. Etched-in serial numbers on these parts could mess up their match-up with specific lower receivers during overhaul.

For instance, a "clean" bolt or bolt carrier found acceptable during inspections is phased back into the mass production line and mated with a rifle by a master headspace gage.

But if a serially numbered bolt or carrier failed inspection, the etching would have to be removed and the part re-marked with a new serial number of an overhauled rifle.

Stick with the tag bit, Sarge.

Half-Mast

TSQ-38 COOLER

If the air conditioner in your AN/TSQ-38 operations central is acting up, it just may pay you to eyeball TB 750-97-41 (Nov 72) to see if that cooler is eligible for repairs.

For instance, if you've got Hughes Model 503600-100 or Redmanson Model CE-36M, the cost of repairs may be too much. Both models are over 10 years old... and repairs may go beyond the maintenance expenditure limit in the TB.

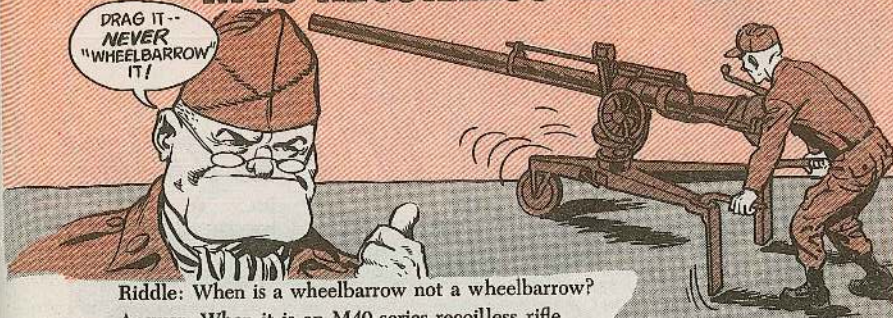


CHECK REPAIR COST... YOU
MAY DO BETTER REPLACING IT

If you do have to replace the model you have, US Army Troop Support Command recommends you do it with Keco Model F36, FSN 4120-935-1523.

M40 RECOILLESS RIFLE TIP

DRAG IT--
NEVER
"WHEELBARROW"
IT!



Riddle: When is a wheelbarrow not a wheelbarrow?

Answer: When it is an M40-series recoilless rifle.

Move your M40 the natural way by pushing the handles wheelbarrow style and what happens?

It falls over on its left side and the sight bracket and elevating handle get broken. This happens every time because the wheel is too narrow and the center of gravity of the rifle is too high.

So what's the right way to move it?

Sort of drag it along or at least keep it no more than an inch or so off the ground. That way, if you feel it starting to tip over, you can set it down.

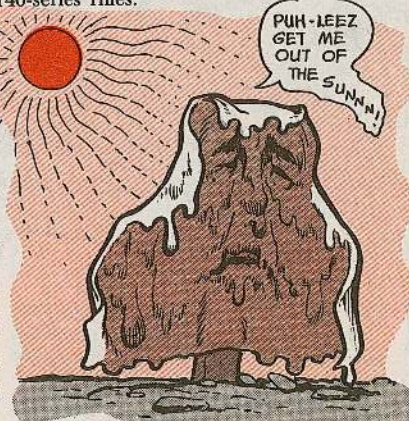
Learn to move the rifle the proper way and you'll prevent the tipping over which accounts for over half of the repairs on M40-series rifles.

POLYETHYLENE TARGET PROBLEM

Here's something you should know about your polyethylene plastic targets—they get soft and bend if you leave 'em in the hot sun.

What you want is a prone target (FSN 6920-071-4589) or a kneeling target (FSN 6920-071-4780). What you don't want is a drooping target that's not stiff enough to work the hit switches.

To keep the droop out of your targets, leave 'em in an upright position when not in use. That way the sun doesn't get quite as good a crack at them.



It's also a good idea to replace a target before it gets too soft. Let it harden again out of the sun and you can use it the next day.

U-JOINTS — FACT 'N' FICTION



Dear Half-Mast,

I won't ask you to settle the argument on which is more fun, blondes or brunettes, but how about lubing and inspecting prop-shaft U-joints?

Some guys say you sock the GAA to a U-joint until it comes out at each of the 4 ends. This is needed, they say, to flush

out dirt and old grease—and to let you know that all 4 ends are fully lubed.

Other guys stick to "One shot's enough—more will blow the seals."

On inspecting for worn U-joints, do you twist or push-pull to see how much play there is?

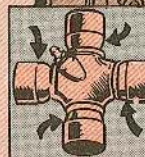
SSG C. F. R.

Dear Sergeant C. F. R.,

I'M GLAD YOU LET ME OFF THE HOOK ON THAT FIRST ONE.

If you hadn't said "sock," I'd say you're right on the nose with that lubing a U-joint until grease comes out all 4 ends.

LUBE MUST COME OUT OF ALL 4 ENDS



PUMP IT SLOWLY... OR YOU'LL BLOW YOUR SEALS!

You put the GAA to a U-joint easy-like with a hand-operated grease gun. This Lube Luger can really put out a high-pressure blast. And that's what'll blow your seals. So you pump in the grease real slow until it comes out all 4 ends of the U-joint.

If the U-joint won't take grease easy, something's wrong. The grease fitting could be plugged solid with dirt or hardened grease. Or it's broken. Or something's plugging up the U-joint itself. You may need a new fitting. Or you'll have to take the U-joint apart to see what the trouble is.

Just leaning harder on the grease gun handle is not the way. If you should manage to blast the U-joint clear, you'll probably blow the seals, too.



Be sure to check the LO on any equipment before lubing. Some things you used to lube don't get regular lubing anymore.

For instance, if a U-joint has a plug instead of a grease fitting, it's probably lubed-for-life with a special lubricant. If your LO does not tell you to lube it, leave it alone—you could do more harm than good.

It's twist, not push-pull, for checking U-joint play.

Sure, you may get end-play when you push-pull, but that's no sign your U-joints are bad. A little end-play is no problem.

Here's the right way:

First, make sure your U-joint mounting screws are tight—or you may get a false alarm on what's going on inside the U-joint.

TWIST, NOT PUSH OR PULL, TO CHECK FOR PLAY



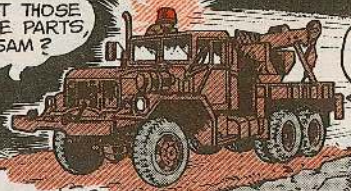
Now, grab one side of the U-joint and twist it back 'n' forth while you hold the other side still.

Any lost motion or clicking means you've got U-joint trouble—probably worn bearings.

Half-Mast



GOT THOSE
SPARE PARTS,
SAM?



YUP!
MIGHT SAY
WE'RE BRINGIN'
HOME TH' BEACON!

A lot of guys are looking for parts for their rotating beacon—NSN 6220-00-947-7570—the job found on some 5-ton wreckers and other equipment.

This light is standard equipment for the M747 heavy equipment transporter.

Here's the story on repair parts:

Only the lamp, NSN 6240-00-635-4643, is stocked. You'll find it on page 49, Ch 2 (Apr 73), TM 9-2320-206-20P.

Your support unit orders any other part,

such as the amber lens or motor, from the manufacturer. If you're stateside, the parts might be bought from an auto parts store.

Why no stockage of these repair parts?

The beacon is installed on wreckers only under a local command requirement—as spelled out in AR 385-55 (Jul 70), para 7-7b. So it's up to your own command's supply channels to get you the repair parts.

Except for the lamp, parts vary.

WHAT'S IN A NAME?

Dear Half-Mast,
Where did the M561 1½-ton truck and M792 ambulance get the name Gama Goat?
Some people say it's got something to do with gamma, a letter in the Greek alphabet.
CW2 R. T. H.

Dear Mr. R. T. H.,

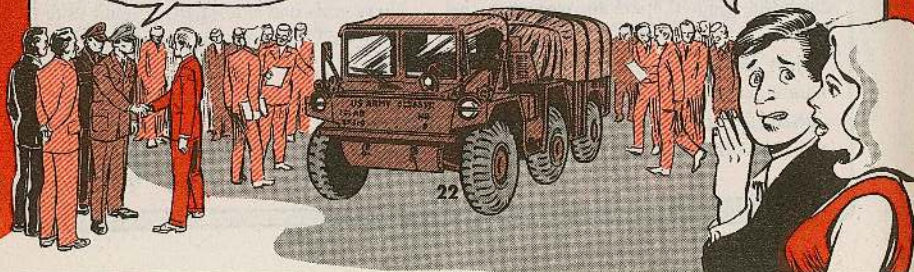
The fact is, it comes from the name of Mr. Rodger L. Gamaunt, who patented the unique articulation joint between the vehicle dual body with the 6-wheeled concept. And the truck's goat-like mobility was coupled with the inventor's name to make Gama Goat.

It's just a coincidence, but "gam," which shows up in words like bigamy, means united or joined.

CONGRATULATIONS,
MR. GAMAUNT!

Half-Mast

I'M SURE GLAD
HIS NAME ISN'T
BILLY!...



STEER TO SWEET DREAMS

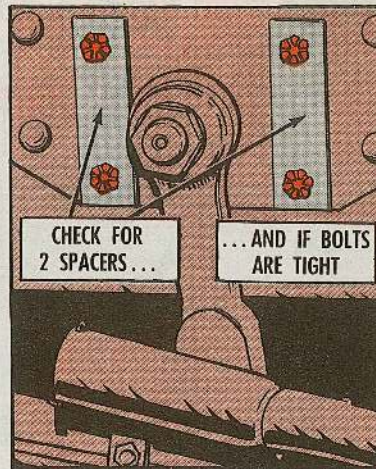


Steering failure is the stuff that nightmares are made of.

So you guys jockeying older 2½-ton trucks had better get under and check your steering gear mounts—the setup that does not have spacers under the bolt heads. Look for loose bolts. See if the bolt heads are cutting into the frame.

Got a bad one? If your DS gives the OK, your own mechanic can fix it. But they'll have to get him the parts:

—Bolt (4 of 'em), 1½ inches long, FSN 5306-241-6592. This's a new item—not the



same one listed in TM 9-2320-209-34P-1 (Jan 73).

—Spacer (2 needed), FSN 2530-963-1620, listed in the -34P-1 TM.

These bolts get 65-79 foot-pounds torque.



Add this to your TM 9-2320-206-20P (Dec 71):

FSN 2590-241-8504 brings the rear winch throttle cable for your M123A1C tractor truck.

Valve, brake control, differential, FSN 2530-575-8394, is for the diesel-engine M123A1C and M123E2—not for the gas jobs like the "Usable-On" code says.

FSN 2530-514-2725 will get you the quick release valve for the air brakes on your rear dual axles. That Valve, air pressure, air brake, FSN 4820-304-9420, on page 66 of your -20P TM is only the check valve for the top part of the quick release valve. Natch, since all of the 10-ton trucks use these parts, the "Usable-On" code should be blank.



COMBAT
SUPPORT



HEAVY CONSTRUCTION
EQUIPMENT TIRE CARE

T'S BACK

Make your tire inspections a daily habit and you'll go far with your heavy equipment tires.

It's a cinch you won't sweat over big tire problems if you take care of the small ones as they come up.

Look over your tires like you mean business. The best time is before you take off for the work site.

REMOVE ALL NAILS, GLASS, ROCKS AND OTHER FOREIGN OBJECTS. CAST A WARY EYE ON THE SMALL BREAKS, BRUISES, UNEVEN WEAR AND TREAD DEPTH.

The whole idea is to prevent further damage that makes a tire not worth repairing or retreading.

If the cuts aren't too bad, bevel 'em out so stones and such can't be wedged in while the vehicle is in motion.

RIGHT TIRE PRESSURE MEANS A LOT

The wrong tire pressure is the No. 1 enemy of the big rubber doughnuts.



CORRECT
AIR
PRESSURE



UNDER-
INFLATED



OVER-
INFLATED

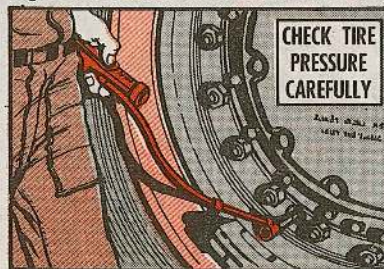
TO BASICS



If you get too much air in 'em you could damage the cords and get a blowout to boot. Overinflation really doesn't add strength to a tire. It weakens the cord body and cuts down on the tire's ability to absorb road shocks. It also leads to center tread wear, bruises and breaks and tread separation from too much stress and strain.

AVOID
UNDER-
INFLATION

So-o-o-o, be safe . . . not sorry. Get the correct tire pressure from the vehicle's TM.



Underinflation will give you a lot of headaches too. Uneven tread wear, rapid wear on the shoulder, sidewall cracks, ply separation and loose or broken cords come with it. Remember, ply separation is caused

CHECK TIRE
PRESSURE AND
PUT AIR IN
'EM WHEN
THEY'RE
COOL.

HOW 'BOUT THE OTHER CHORES?

During the daily check, be sure the periodic tire services are holding up. Call a mechanic to help you if you need him on these:

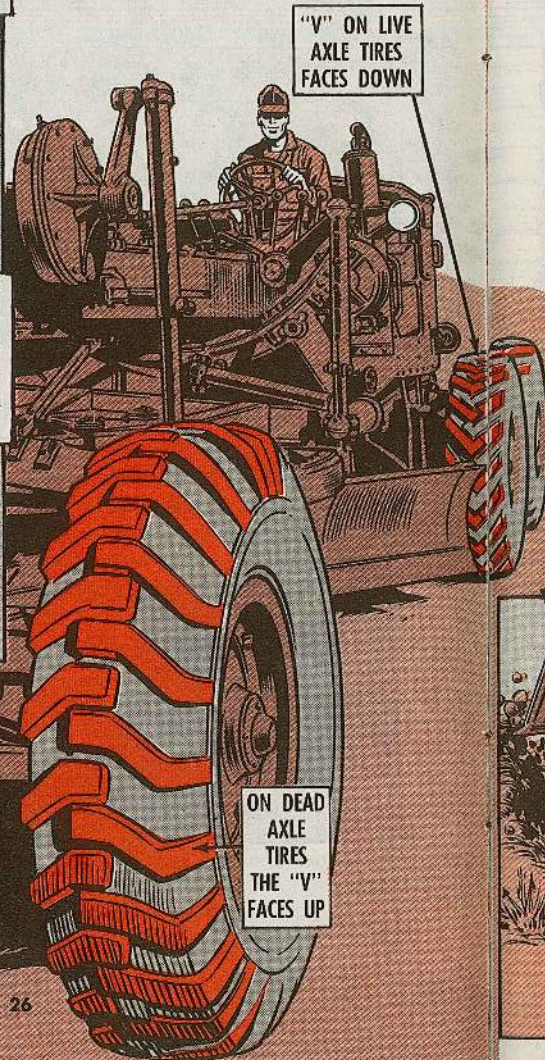
1. Rotating the tires. Clean all the wheels, lug nuts, studs with a wire brush.



2. Matching the tires. Make sure your tires have the same profile and tread pattern. If you change a tire, don't forget the bead-breaking tool kit, FSN 4910-773-9341. TM 9-2610-200-20 (Jan 71) tells you how to use it.



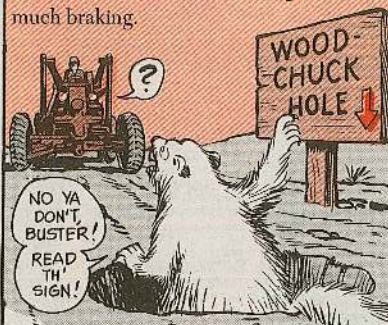
3. Mounting 'em right. All directional tires on live axles go on so the point of the "V" hits the ground first. This way the tire cleans itself as it rolls through the mud, sand, gravel and muck. On dead axles, turn the point of the "V" the opposite way.



26

MAKE IT EASY ON YOURSELF

One thing's sure, you can extend tire life by preparing the roadway and working area for your big machine. This'll reduce tire cost, save lots of time and prevent too much braking.



Before you operate your equipment, make certain there're no chuck holes or large rocks in the roadbed. You want the turns to be elevated and built with as much radius as you can get.

Plan the roadbed so the grade and crown are kept down. You should use non-abrasive material for the surface. Never put too much water on the roadbed to settle the dust. Wet rubber cuts a lot easier than dry rubber, y' know.

STEADY AS SHE GOES

Lots of tire troubles come from poor machine operation. For your tires' sake, keep these tips in mind:

Cut down your speed before you leave the haul roads. It's less stress and strain to a tire.

Never ride the brakes. It causes heat buildup in the tire body.

Reduce rim pull as much as you can. It'll take a lot of stress and strain off the tire beads, sidewalls and tread.

Make no short turns. Sharp curves cause the outside tires to travel farther and wear faster than those on the inside.



Never let anything block your vision. With a clear view you'll see any large rocks, chuck holes and other obstacles on the road.



27

PUBS

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 (Aug 73), and Ch 2 (Dec 73), TM's, TB's, etc. DA Pam 310-6 (Jul 73) and Ch 3 (Apr 74), SC's and SM's, and DA Pam (C) 310-9 (Mar 73), COMSEC Pubs.

TECHNICAL MANUALS

TM 9-1005-249-10 C2 Jan M16A1 Rifle
TM 9-1015-203-12 C5 Apr Operator/
Crew and Organizational Maintenance
Manual for M101 series howitzers
TM 9-1015-234-12 C10 Apr Operator
and Organizational Maintenance Manual
for M102 howitzer
TM 9-1025-200-12 C11 Apr Operator
and Organizational Maintenance Manual
Howitzer M114 series howitzers
TM 9-1340-214-10 C1 Mar 66MM Light
Antitank Weapon (Law) System M72A1
and M72A2
TM 9-1410-485-20P Feb M5 M29 M30
(LANCE)
TM 9-1425-484-20 Mar LANCE Missile
System

TM 9-1430-485-20P Mar List for Monitor-Programmer, Missile Guidance Set, AN/GJM-24 (LANCE)
TM 9-1430-528-24P Apr Radar Set AN/MPQ-48 (IMPROVED HAWK)
TM 9-2330-202-14P C4 Mar Trailer, 34-Ton M101 M101A1 M116 M116A1
TM 9-2330-227-14 C2 Apr Semitrailer, Van Shop 6-Ton M146 M146C
TM 9-2350-222-20 C6 Apr Organizational Maintenance Manual for M728 CEV
TM 9-2350-224-10 C12 Apr Operator's Manual for M48A3 Tank
TM 9-2350-238-10 C1 Mar Operator's Manual M578 Recovery Vehicle
TM 9-2350-247-20P Feb Organizational Maintenance Repair Parts and Special Tools Lists for M548 Cargo Carrier
TM 9-2630-200-14 (Curr Cy) Jan Identification, Inspection, Classification, Maintenance, Storage, Disposition, and Issue of Solid-Rubber Tires and Truck Components
TM 11-2140-10 C9 Apr AN/TCC-8, -21 Telephone Repeaters
TM 11-4940-246-14 Apr Operator's Organizational Direct Support and General Support Maintenance Manual AN/ASM-189A, 190A Semitrailer Mounted Electronic Shops
TM 11-5805-240-12 C5 Apr AN/TCC-11 Telephone repeater
TM 11-5805-262-12 C5 Mar SB-22(i)/PT switchboard
TM 11-5805-285-15 C9 Apr AN/MCC-6 Telegraph-Telephone Terminal
TM 11-5805-349-24P Apr AN/GTC-7 Telephone Set
TM 11-5810-245-12P C1 Mar TSEC/KY-38 COMSEC Equipment
TM 11-5815-221-20P Mar CV-116(i)/URR Frequency Shift Convertors
TM 11-5815-330-20P Apr C-975/URR Receiver Control
TM 11-5815-359-14-1 Apr AN/FGC-140 Teletypewriter Set
TM 11-5820-438-12P Mar AN/SRC-7 Radio Set
TM 11-5820-469-20P Mar AN/TRC-80(i) Radio Terminal Sets
TM 11-5820-524-12 C4 Dec AN/TRC-90A Radio Terminal Set
TM 11-5820-607-12 C2 Dec AN/TRC-132 Radio Terminal Set
TM 11-5840-211-12 C2 Apr AN/PPS-4A Radar Set
TM 11-5840-217-20P Mar AN/TPS-25(i) Radar Set
TM 11-5840-280-14P Apr Operator's Organizational Direct Support and General Support Maintenance Repair Parts and Special Tool List (Including Depot Maintenance Repair Parts and Special Tools) MK-541/PPS-4 Maintenance Kit Electronic Equipment
TM 11-5840-298-12 C7 Feb AN/PPS-5(i) Radar Set
TM 11-5895-221-14 C3 Apr Set AN/MRC-73(V) Radio Terminal
TM 11-5895-225-15-1 C1 Apr SB-675A/MSC Communication Patching Panel

TM 11-5895-357-14 C4 Mar Operator Organizational Direct Support and General Support Maintenance Manual Including Repair Parts and Special Tools List AN/MRC-102(V) Radio Terminal Set
TM 11-5915-224-14 C1 Mar Operator's Organizational Direct Support and General Support Maintenance Manual Including Repair Parts and Special Tools List MX-7778A/GR Electrical Transient Suppressor
TM 11-5985-257-24P Mar MX-746/FR Installation Kit
TM 11-5985-284-15 C2 Feb AT-784/PRC Loop Antenna
TM 11-6125-202-24P Mar PU-243(i)/SPN-11 Motor Generators
TM 11-6625-539-15-2 C1 Mar TS-1836B/U Transistor Test Set
TM 11-6625-2606-24P Mar AN/ARM-156 Radio Test Set (6625-086-6304)
TM 11-6720-212-20P Mar Airborne Photographic Surveillance System KS-61A
TM 55-1520-209-PMI C3 Mar CH-47A Helicopter
TM 55-1520-209-PMD C3 Apr CH-47A Helicopter
TM 55-1520-209-PMP Apr CH-47A Helicopter
TM 55-1520-209-10 C8 Dec CH-47A Helicopter
TM 55-1520-210-20 C14 Mar UH-1D/H Helicopter
TM 55-1520-217-PM5-1 Apr CH-54A Helicopter
TM 55-1520-217-PM5-2 Apr CH-54B Helicopter
TM 55-1520-217-20P-2 Apr Cargo Transport CH-54A CH-54B
TM 55-1520-219-20 C3 Apr UH-1B Helicopter
TM 55-1520-220-20 C1 Mar UH-1C/M Helicopter
TM 55-1520-221-20 C14 Mar AH-1G Helicopter
TM 55-1520-221-20P C1 Apr AH-1G Helicopter, Flight Trainer—TH-1G
TM 55-1520-227-CL C2 Mar CH-47B and CH-47C Helicopters
TM 55-1520-227-PM1 C2 Mar CH-47B and CH-47C Helicopters
TM 55-1520-228-20 C10 Apr OH-58A Helicopter
TM 55-1520-228-20P C2 Mar OH-58A Helicopter
TM 55-4920-243-15 C3 Apr Vibration Monitoring Kit

MISCELLANEOUS

MWO 55-1520-228-30-12 C2 Apr Closed Circuit Refueling Receiver (OH-58A)
TB 55-2925-200-25 C6 Mar Spark Plug Service and Maintenance
TC 9-71-1 PT Mar General Subject Pertaining to ASubjSec 9-71120
TC 9-71-3 PT Jan Operational Records Pertaining to ASubjSec 9-71120
TC 17-22 May Operator Training Course—Combat Vehicles M113, M113A1



These Forms are for
you when you're...
**OPERATOR--
OR CREW**



OK, MEN! TODAY'S TH' DAY WE REALLY PROVE OURSELVES. LET'S HAVE NO GOOF-UPS-- FROM START TO FINISH! TODAY'S MISSION-- OPERATION MIRAGE!

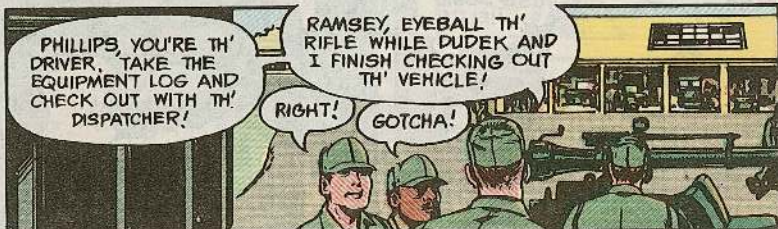
RIGHT ON, SARGE!

OUR ONLY WEAK SPOT IS OUR PAPER WORK, SARGE--BUT WE'VE BEEN WORKIN' ON THAT!

YEH--I THINK WE FINALLY GOT THEM FORMS FIGURED OUT.

Y'D BETTER HAVE--OUR "REP" IS ON THE LINE.

OK--HERE WE ARE! LET'S LOOK THE VEHICLE OVER!



PHILLIPS, YOU'RE TH' DRIVER, TAKE THE EQUIPMENT LOG AND CHECK OUT WITH TH' DISPATCHER!

RAMSEY, EYEBALL TH' RIFLE WHILE DUDEK AND I FINISH CHECKING OUT TH' VEHICLE!

RIGHT!

GOTCHA!



HEY, WHAT'S TH' CLASSY CHICK DOIN' HERE IN TH' MAINTENANCE SHOP?



MORNING, SERGEANT-- I'D LIKE TO LOG OUT OUR MISIAIC...

ER-- HERE'S TH' LOG BOOK AND MY SF-46...

HEY-- WATCH IT!



OH-- MEET CONNIE RODD! SHE'S HERE TO DO SOME PR FOR OUR NEW MAINT PEOPLE--

IT'S MY PLEASURE.

CONNIE RODD! HEY, THIS IS GREAT! CAN YOU COME OUT AND MEET THE OTHER GUYS?

HMMM-- YOUR SF 46 IS OK, BUT COMPLETE YOUR DA 2404 FOR TH' BEFORE OPERATIONS CHECK-- THEN I CAN SIGN YOU OUT ON MY DA 2401.



LOVE TO-- SEE YOU LATER, SERGEANT!

HOPE SHE TRIES TO STRAIGHTEN THEM OUT ON THEIR FORMS-- THEY SURE CAN USE SOME HELP!



MEN-- LOOK WHO'S HERE--

WONDERFUL-- MEBBE SHE CAN HELP US!

CONNIE RODD!

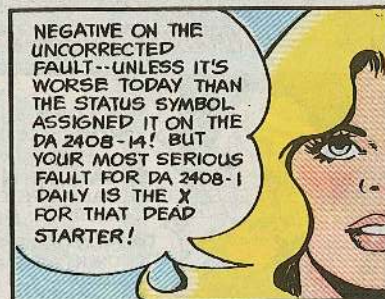
WE GOT A COUPLA PROBLEMS!

VA-VOOM!



CONNIE-- FIRST OFF, WE GOT A DEAD STARTER ON THE VEHICLE--

--AND WE'VE GOT AN UNCORRECTED FAULT-- A CRACKED MIRROR-- LISTED ON DA 2408-14. DOES THAT DEADLINE US? DOES IT HAVE TO BE LISTED ON THE DA 2404?



NEGATIVE ON THE UNCORRECTED FAULT-- UNLESS IT'S WORSE TODAY THAN THE STATUS SYMBOL ASSIGNED IT ON THE DA 2408-14! BUT YOUR MOST SERIOUS FAULT FOR DA 2408-1 DAILY IS THE X FOR THAT DEAD STARTER!



YOU TAG THE STARTER WITH THIS DA 2402-- TAKE IT OVER TO SUPPLY, EXCHANGE IT FOR A LIVE ONE, AND GET YOUR MECH TO INSTALL IT.

RIGHT!



SOON... NOW THAT THE NEW BATTERY HAS BEEN INSTALLED AND EVERYTHING ELSE IS OK--

I KNOW! I CAN COMPLETE THE DA 2408-1 DAILY-- ENTERING THE FAULT SYMBOL FOR THE CRACKED MIRROR, BUT CHECKING THE EQUIPMENT OPERATIONAL!

ALL FORMS AROUND HERE TODAY ARE WELL FILLED OUT.



OKAY, MEN! AS SOON AS PHILLIPS CLEARS THE DA 2404 WITH THE DISPATCHER, WE'RE ALL SET TO MOVE OUT!

THANKS, CONNIE-- HOPE YOU'RE STILL AROUND TO HELP US LOG IN WHEN WE RETURN.

BYE, NOW!



BOY-- CONNIE IS SURE AN A-OK TYPE!

YOU SAID IT!

HEY, JUST BEFORE WE LEFT, SHE GAVE ME A POSTER-- SAID IT MIGHT BE HELPFUL. HERE IT IS--

TAMMS WRAP-UP ---

OPERATOR AND CREW

... FORMS YOU RAP ABOUT WITH
YOUR **DISPATCHER**...
AND SOMETIMES GET INFO FROM...

... FORMS YOU WRITE DATA ON... FOR
ESC RATING AND BEFORE- DURING - AFTER
OPERATIONS CHECKS

... FORMS YOU RAP ABOUT WITH... YOUR
SUPERVISOR OR **SUPPLY MAN**
... AND SOMETIMES GET INFO FROM...

DA FORM 2401...

DISPATCHER WILL NEED
INFO FROM --:

YOUR
SF 46...

THE
EQUIPMENT
DA 2404
AND...

DA 2400
OR
DA 2408-1-
WHICHEVER HE
USES TO
AUTHORIZE
DISPATCH

NOTE: Aircraft crew-
Substitute DA 2408-13
for DA 2404 and DA 2408-1
and DA 2408-16 for
DA 2408-10. Also fill
in DA 2408-12.

DA FORM
2404...

... AFTER CHECK-
ING DA 2408-14
(FOR FAULTS NOT
CORRECTED)... AND
DA 2408-10 (FOR
COMPONENT USAGE)

DA FORM 2408-1 DAILY...

AFTER CHECKING
NEXT PM DUE ON
2408-1 MONTHLY.

DA FORM 2408-4...
(WHEN EQUIPMENT HAS
A MAJOR WEAPON) FOR
EFC ROUNDS FIRED.

DA FORM 2402...
(SOMETIMES) FOR
TAGGING DX COMPONENTS
AND FAULTY ITEMS
UNDER WARRANTY.

DA FORM 2407
...EIR FOR
FAULTY
EQUIPMENT.

DD FORM 314...
PM DUE (SUPRV)

DA FORM 2408-1
MONTHLY... PM
DUE (SUPRV)

DA FORM 2408-5
... MWO'S (SUPRV)

DA FORM 2408-10
...COMPONENT
REPLACEMENT
(SUPRV/SUP MAN)

DA FORM 2408-14
...UNCORRECTED
FAULTS (SUPRV/
SUP MAN)

DA FORM 2409...
PM AND MWO'S
(SUPRV)

DA FORM 2765
...REPAIR PARTS
(SUP MAN)

DA FORM 2408-9
...TRANSFER AND
USAGE DATA REPORT
(SUP MAN)

NOTE: Aircraft crew-
Substitute DA 2408-13
for DA 2408-1, DA 2408-16
for DA 2408-10 and
add DA 2408-17,-18
and -19.

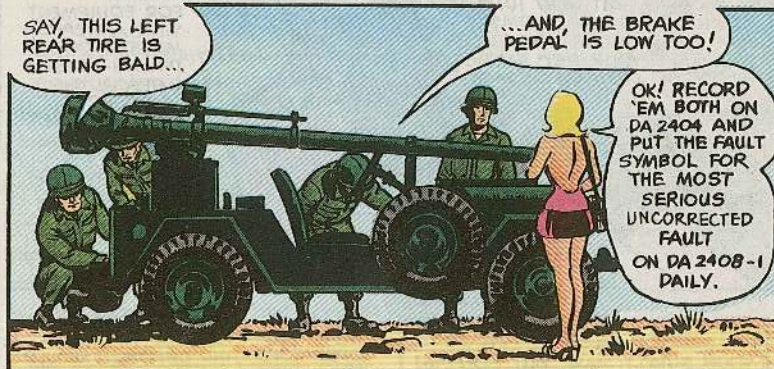
WE HAVE THE WORLD'S BEST EQUIPMENT ... *Take care of it*

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

AND SO, CRACK RECOILLESS RIFLE CREW **BRAVO**, OF COMPANY C, 5TH BN. DOES ITSELF PROUD THIS DAY AND COMPLETES ITS MISSION, **OPERATION MIRAGE**, WITH PERFECT PRECISION...



LATER... AS THEY RETURN, TIRED BUT HAPPY, TO **CAMP YUMA**...



YOUR SUPERVISOR NORMALLY FILLS IN DA-2408-1 MONTHLY-- BUT **THE OPERATOR** NEEDS TO CHECK THAT FORM TO SEE WHEN THE NEXT PERIODIC PM SERVICE IS DUE.



EITHER THE SUPERVISOR OR UNIT MECHANIC FILLS IN **MWO'S** DUE ON THE EQUIPMENT ON DA 2408-5 AND THEY RECORD MOST COMPONENT CHANGES ON DA 2408-10. BUT **YOU** HAVE TO WATCH BOTH THESE FORMS WITH A SHARP EYE WHEN YOU MAKE YOUR **ESC** RATING EVERY 90 DAYS ON DA 2404.

URGENT OR LIMITED URGENT **MWO'S** NOT APPLIED AND COMPONENTS WITH LONG-TIME SERVICE LISTED ON DA 2408-10, CAN CHANGE YOUR EQUIPMENT STATUS.

AND FOR EQUIPMENT WITH A WEAPON MOUNTED ON IT, DA 2408-4 NEEDS A SPECIAL CHECK ON ROUNDS FIRED AND OTHER **PM** ON GUN, MOUNT OR TUBE.



DA FORM 2765 IS FILLED OUT BY YOUR SUPPLY MAN, BUT **YOU** CAN GIVE HIM DETAILS TO IDENTIFY A PART THAT FAILED!



THERE ARE TWO OTHER FORMS ALL OPERATORS AND CREWMEN SHOULD KNOW, EVEN THOUGH YOU MAKE NO ENTRIES ON THEM-- DA 2409 AND DA 2408-9!...

HEY-- WHAT'S THE HUDDLE FOR?



CONNIE-- BY UNANIMOUS VOTE, WE'VE JUST ELECTED YOU OUR FAVORITE TALKING FORM!



AIR MOBILITY



PM

CUTS SQUAWKS



THAT BLINKIN' RADIO IS OUT AGAIN!



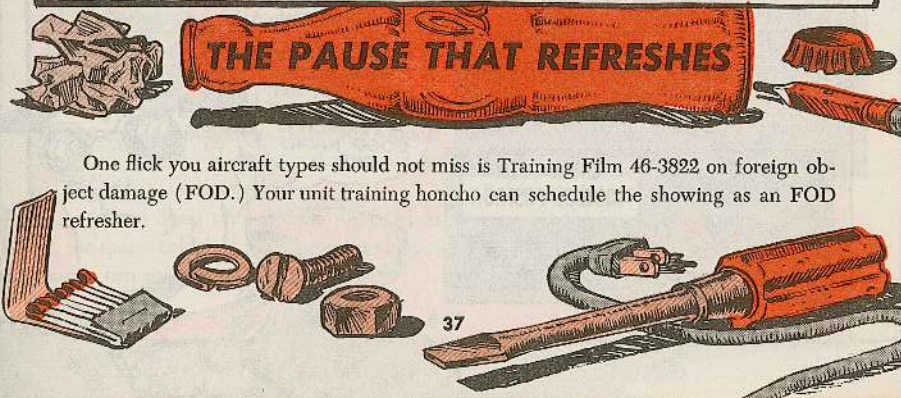
There is a good way to keep the number of aircraft radio squawks to a minimum, avionics types: Do your scheduled preventive maintenance (PM.)

Course, the pilot eyeballs the electronics gear from his pre-flight checklist. The crew chief pulls the electronics Daily and Intermediate, listed on the aircraft preventive maintenance services checksheets, by eyeballing antennas and antenna mounts.

But, it's the electronic Periodic inspection that really pays off. Those checks and services, done every 200 flying hours (300 for OH-58A, OH-6A), will uncover minor problems before they ground a bird.

The electronic Periodic is listed in the TM 11-1510 and 1520-series pubs for all aircraft, along with bench check requirements based on flying hours.

Have you eyeballed a copy lately?



One flick you aircraft types should not miss is Training Film 46-3822 on foreign object damage (FOD.) Your unit training honcho can schedule the showing as an FOD refresher.

**NEW
SQUELCH?**

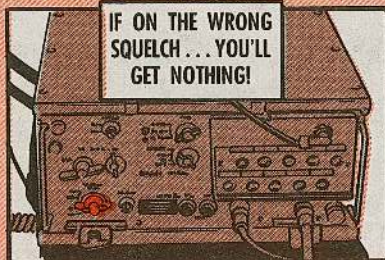
**OLD
SQUELCH?**

NEITHER!..
**RAQUEL
SQUELCH!**



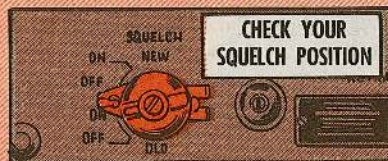
Feel like turning in your aircraft FM radio set for fixin' after you get no communication with your ground unit's AN/VRC-12 series set?

**IF ON THE WRONG
SQUELCH ... YOU'LL
GET NOTHING!**



Hold up a while, birdman. Check with that ground team and see what squelch the VRC-12 model was operating on. It makes a difference.

If you try to communicate with a ground-based set that's operating in **new SQUELCH** on the RT-524 or RT-246, chances are you won't make it. Not many of the aircraft FM sets are wired to communicate with the new SQUELCH setting.



You air-types with tone squelch can get through OK when vehicle FM radios are in **new SQUELCH**.

Without tone squelch, tho, make sure your ground unit has its RT-524 or -246 on the old SQUELCH setting. This opens the way to reliable messaging between ground and aircraft.

Any time you're communicating with one ground-based RT-524, for example, but fail to make it with another ground-based RT, suspect that the second unit's operating in **new SQUELCH**.

O'course, you have to be on tone squelch to communicate with portable radios or their vehicle versions 'cause **new SQUELCH** is all they have.

THIS KIND
OF INFO CAN
SAVE UNCLE
LOTS'A AVIONICS
MAN-HOURS
AND TEST SET
HOURS, CHECKING
A PERFECTLY
GOOD RADIO
SET.



LONG MAY IT SPARK

HARK TO THE ARC

That sparky little AN/ARC-114 FM aircraft radio takes good care of you air types — and you naturally yearn to return the favor.



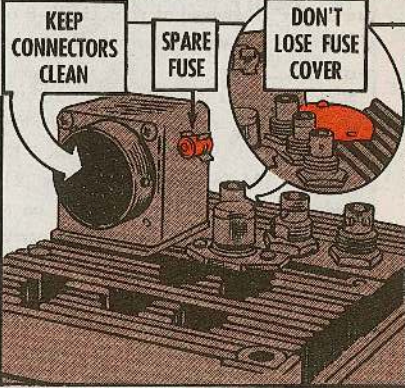
The connectors are key communications items . . . keep 'em clean and crud-free. This includes the 3 antenna connectors and the power connector.

Avoid hard-turning the control-panel knobs. They're built to last, but they can be broken.

When you're changing fuses, keep that loseable fuse-cover close to your fingertips. It's small and can disappear.

If a fuse blows and you replace it, then the second fuse blows, have your support take a look at your set . . . there could be something wrong internally.

Always keep a spare fuse mounted in the spares holder. If the regular fuse blows, you can still have communication.



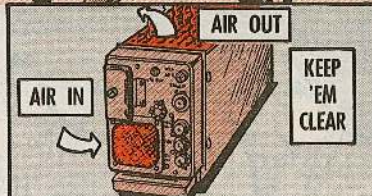
Before starting or stopping the aircraft engine, set the function selector switch to **OFF**. That'll head off any spike damage to the radio set.

HEAVE HO, WITH CARE

OUCH!
I'M GETTIN'
INDIGESTION OF
THE TRANSPONDER!

When you Seminole (U-8) types stow gear or supplies in the baggage compartment give the transponder set, AN/APX-44, some room, will ya?

The RT-494 is mounted on the storage shelf where it can easily get buried. When that happens, the air inlet is blocked off and the motor will heat up and seize. Your bird is grounded for unscheduled maintenance.



Keep your IFF in business by seeing that the air inlet and air outlets are not blocked.

THAT TIRELESS NOSEWHEEL

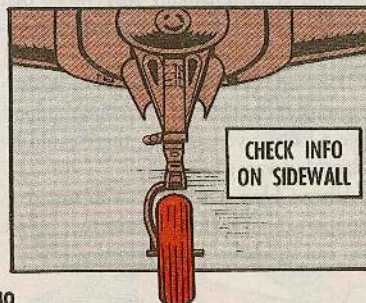
If you want to use a "HELICOPTER" tire on the nosewheel of your U/RU-8 or U/RU-21 fixed-wing, it just may be in the cards.

Some tires with specs for fixed-wing use were mistakenly marked HELICOPTER on the sidewall. And, o'course, para 1-13 of Ch 1 to TM 55-2620-200-24 (Nov 72) forbids the use of a helicopter tire on a fixed-wing because chopper tires carry less undertread.

However, if you've got tires with the following info on the sidewall, they're OK for the Seminole and Ute:

FSN 2620-142-5280
6.50-10
10 PR
Tubeless
Goodyear Aircraft

The tire must be of 1973 manufacture, no other year. The serial number contains the Julian date in the first 4 digits . . . the first number represents the last digit of the year, with the next 3 numbers indicating the day of the year. For example, 25 Dec 70 is 0359. Para 1-20a (6), TM 55-2620-200-24 carries the word on manufacturing dates.



O-RING'S THE THING

WELL--
IF IT ISN'T
"BUBBLES"
MOHAWK!

I'M SO
EMBARRASSED!...

MY O-RING
PACKING IS
LEAKING!

A lot of tires on the Army's big birds are being rejected because they're thought to be leaking air.

Chances are it's not the tire that's leaking.

The OV-1, U-21, CH-47 and CH-54 tires are mounted on a split wheel with an o-ring packing between the inner and outer halves.

When applying a soapy water solution around a suspect tire you'll get small bubbles from the vent holes. . . that's normal. The vent holes release air trapped between the plies of the tire. The tire doesn't leak.

If you plunge the whole wheel into water, tho, you may see large bubbles of air escaping from between the wheel halves. . . that's not normal.

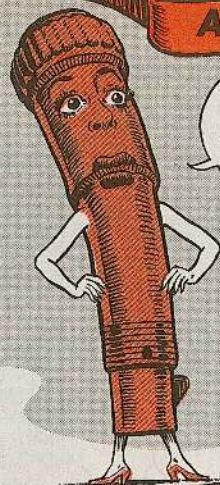


The problem is not a leaky tire—but a leaky O-ring packing.

Which is why you Airdales who mount tires want to use a new O-ring on every mounting. Also, be sure the groove is clean so the O-ring seats completely.

A good mounting will save a lot of unnecessary tire changing.

A WRAP IN TIME



ISN'T IT A-PAWLING HOW A NEW WRAP MADE A LOOSE BOLT OF HER?

YEH--NOW SHE HAS NO HANG-UPS!

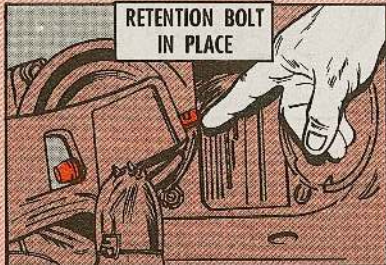


Dear Editor,

The new positive retention bolts used in critical flight-control systems on our Chinook (CH-47) really stay put. The spring-loaded pawl keeps the bolt from backing out if the nut should come off.

Comes the time to remove one of the drive scissors bolts, tho, the bolt will hang up on the edges of internal parts unless a way is found to depress the locking pawl. Using force on the bolt can damage mating parts and the bolt.

RETENTION BOLT IN PLACE



We solved the problem by depressing the pawl and wrapping it with masking tape. You can also use cellophane tape.

There is enough space for the tape wrapping during bolt removal. The diameter at the pawl is smaller than the shank portion of the bolt.

DEPRESS PAWL WITH TAPE TO REMOVE BOLT



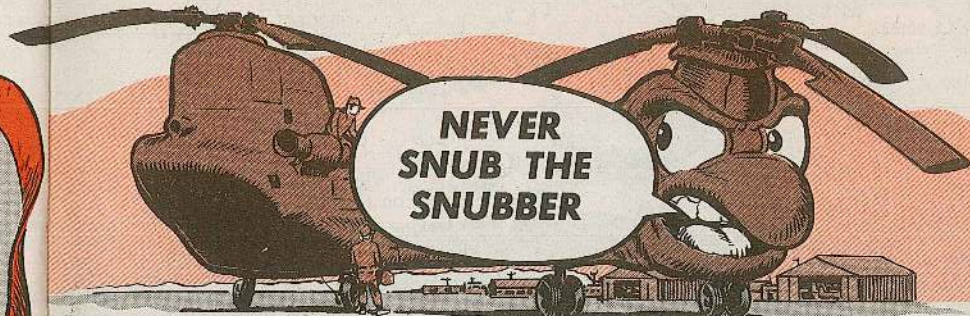
'Course we remove the tape from the bolt after use. You don't use the tape for bolt installation.

Those bolts are hard to remove at best, but at least we don't have any more hang-ups.

SSG Michael May
Ft Sill, OK

(Ed Note--Good going. Looks like a winner.)

NEVER SNUB THE SNUBBER



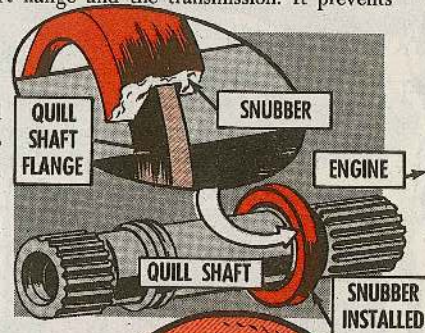
When you Chinook (CH-47) types are about to install the quill shaft in an engine transmission, focus in on the snubber, for real.

That baby is a buffer between the shaft flange and the transmission. It prevents metal-to-metal contact... and wear!

The snubber will go to pieces on you, tho, unless you put it in right.

So, seat the snubber flange on the quill shaft flange. The snubber flange has to face outboard, toward the engine transmission.

The properly positioned snubber will then be free to rotate around the shaft flange, yet be securely locked to the flange.



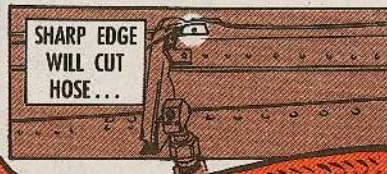
"SAM - YOU MADE THE LINE TOO LONG"

Spiral wrap used around hoses for protection is great, bird mechs, but it can't work miracles.

Some Chinook types found this out the hard way. They ran a couple of engine hydraulic hoses over the metal support near the engine mount. They figured the

spiral wrap would protect the lines. It didn't. The shake, rattle and roll all chopper hoses go through caused the support to cut right through the wrap and into one of the hoses. Much embarrassment all around!

SHARP EDGE WILL CUT HOSE...



...USE RIGHT LENGTH HOSE



The solution: Use the right length hose—with the proper routing.

WHAT
TROUBLE

MOHAWK MESSAGES

Nothing a Mohawk birdman should be on the lookout for is hydraulic fluid leaking out around the sway brace in the landing gear strut. That leaking fluid means you've got a cracked internal barrel.

CHECK
FOR
FLUID
LEAK

Just as no Mohawk Indian would want to put a hole in the skin of his trusty canoe, no Mohawk birdman would want to put a hole in the skin of his OV-1.

But that's exactly what you—and the wind—can do if you're not careful. When you're outside and have the avionics door propped open, be sure you lock the door support tube. Forget about it and a gust of

LOCK
IT
DOWN...

wind could push the door up and punch one of the door latches right through the fuselage skin. That'll call for some sheet-metal work.

...OR ELSE
YOU'LL BE
PATCHING

O' course, leaking hydraulic fluid is bad news anywhere. The sooner you spot it the better off you are. As more leaks out, all the systems that depend on hydraulic pressure become less reliable.

For instance, your landing gear could fail at an embarrassing moment—like when you want to land. If your backup system for operating the landing gear is in the same shape the hydraulic system is, you could get embarrassed all over the runway.

So, birdmen, beware of leaks and punches. Keep your Mohawk ready for the warpath.

HOLE
IN
FUSE
LAGE

U-8G FLAP

OUCH
CAUGHT
WITH MY
FLAPS
DOWN
AGAIN!

Lowering the flaps on some U-8G's may be damaging if the passenger door is in the down position.

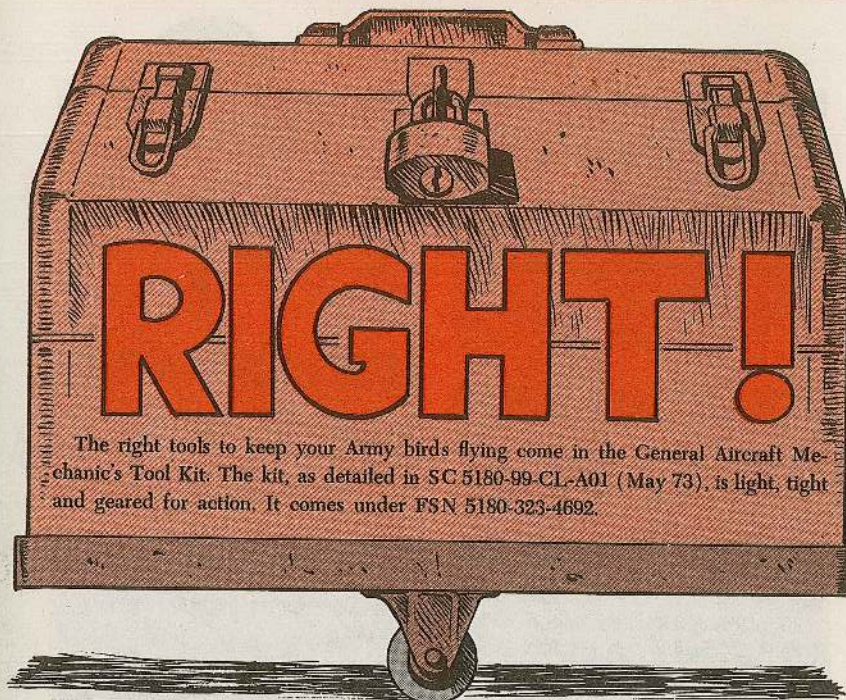
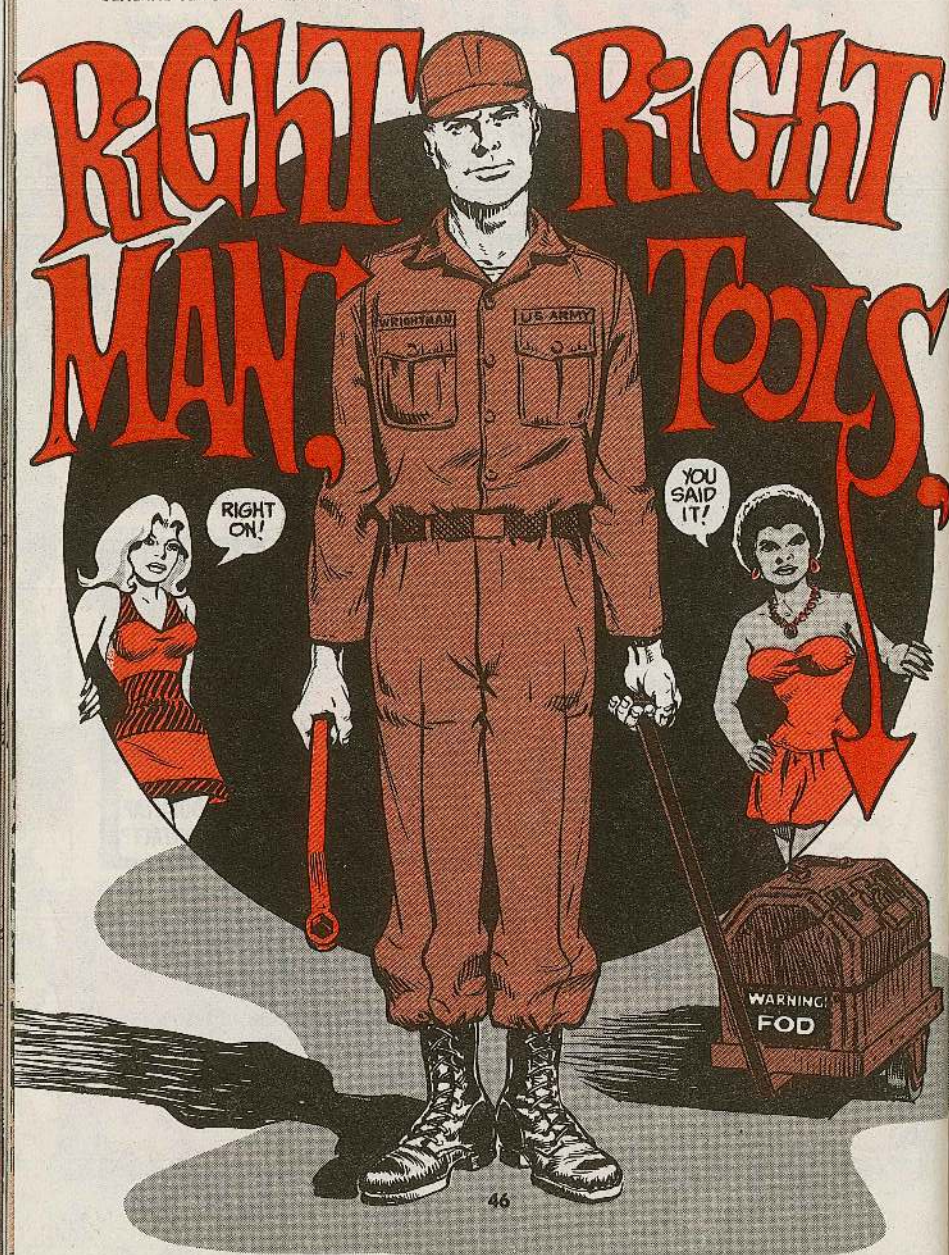
You may get metal-to-metal contact between the passenger door and the right wing-flap. Either the door or the flap can be bent.

O' COURSE
YOU NEVER
WANT TO OPEN
THE DOOR WITH
THE FLAPS DOWN
EITHER.

AVOID
DOOR-FLAP
CONTACT

MWO OF THE MONTH

Not all Seminoles have been modified by MWO 55-1510-201-30/18 (1 Jul 71); Relocation of the Chip Detector from the Oil Filter Assembly to the Oil Scavenge Pump Screen Assembly. Eyeball your log book. The mod alerts the pilot to a possible engine failure if there're metal chips in the screen.



The right tools to keep your Army birds flying come in the General Aircraft Mechanic's Tool Kit. The kit, as detailed in SC 5180-99-CL-A01 (May 73), is light, tight and geared for action. It comes under FSN 5180-323-4692.

ADAPTER, SOCKET WRENCH: $\frac{1}{4}$ in sq male end, $\frac{3}{8}$ in sq female end.



FSN 5120-227-8095

ADAPTER, SOCKET WRENCH: $\frac{3}{8}$ in sq male end, $\frac{1}{4}$ in sq female end.

FSN 5120-224-9219

AWL, SADLER'S PAD: 4-in lg blade



FSN 5120-223-8191

BIT, SCREWDRIVER: Flat tip, $\frac{1}{4}$ -in male hex drive, $\frac{3}{16}$ in w tip, $1\frac{1}{2}$ in lg o/a.



FSN 5120-293-2057

BIT, SCREWDRIVER: Flat tip, $\frac{1}{4}$ in male hex drive, $\frac{3}{8}$ in w tip, 1 in lg o/a.

FSN 5120-690-7273

BIT, SCREWDRIVER: Flat tip, .255 in min, .259 in max female sq drive, $\frac{3}{8}$ in w tip, $1\frac{1}{2}$ in lg o/a.



FSN 5120-321-4508

BIT, SCREWDRIVER: Phillips type cross tip, No. 1 size, ¼ in male hex drive, 1 in max lg o/a.



FSN 5120-223-6971

BIT, SCREWDRIVER: Phillips type cross tip, No. 2 size, ¼ in male hex drive, 1 in max lg o/a.

FSN 5120-595-8197

BIT, SCREWDRIVER: Phillips type cross tip, No. 3 size, ¼ in male hex drive, 1 in lg o/a.

FSN 5120-250-5576

BIT, SCREWDRIVER: Phillips type cross tip, No. 4 size, 5/16 in male hex drive, 1¼ in lg o/a.

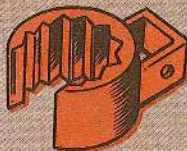
FSN 5120-595-8198

BRUSH, PAINT: Oval, syn filament, chisel edge, 1¼ in w, chisel edge, 1¼ in w, 1 1/16 in thk, 2¼ in min exposed lg.



FSN 8020-297-6657

CROWFOOT ATTACHMENT, SOCKET WRENCH: Box style, 12 pt. .375 in nom dr size, single end, .750 in wrenching size, 1.687 in nom lg o/a.



FSN 5120-935-7388

EXTENSION, SOCKET WRENCH: Flex ¼ in sq dr, 6 in nom lg.



FSN 5120-240-1532

EXTENSION, SOCKET WRENCH: ¼ in sq dr, 2 in nom lg.



FSN 5120-227-8105

EXTENSION, SOCKET WRENCH: ¼ in sq dr, 6 in nom lg.

FSN 5120-243-7325



ALL FILES SHOULD BE USED WITH HANDLES ON!

EXTENSION, SOCKET WRENCH: ¾ in sq dr, 3 in lg.

FSN 5120-243-1689

EXTENSION, SOCKET WRENCH: ¾ in sq dr, 6 in lg.

FSN 5120-227-8107

EXTENSION, SOCKET WRENCH: ¾ in sq dr, 9 in nom lg.

FSN 5120-243-1693

EXTRACTOR, COTTER PIN: 6 in lg o/a.



FSN 5120-222-4284

FACE, HAMMER, INSERTED: Screw-in type, plastic, mdm hardness, 1 in dia flat striking face.



FSN 5120-293-3003

FACE, HAMMER, INSERTED: Screw-in type, plastic, tough, 1 in dia striking face.

FSN 5120-596-1072

FILE, HAND: American patt, half-rd type, dbl cut, bastard faces, 6 in lg heel to point.



FSN 5110-241-9147

FILE, HAND: American patt, half-rd type, dbl cut, smooth faces or dbl cut, smooth face, sgle cut, smooth face, 6 in lg heel to point.

FSN 5110-241-9149

FILE, HAND: American patt, rd type, sgle cut, smooth face, 8 in lg heel to point.



FSN 5110-234-6553



ALWAYS CLEAN PAINT BRUSHES BEFORE STORING!

FILE, HAND: American patt, three-sq type, dbl cut, smooth faces, 8 in lg heel to point.



FSN 5110-241-9163

FINGER, MECHANICAL: Flex 14% in reach.



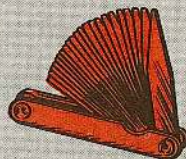
FSN 5120-629-6258

FLASHLIGHT: Batt op, 2-cell, straight tubular plastic case, fixed focus, w blackout and red filters.



FSN 6230-269-3034

GAGE, THICKNESS: English sys, 1 blade group, 26 tapered blades, 3 in lg, 1/4 in w at tip, .0015 to .025 in thk, w blade lock.



FSN 5210-221-1999

GAGE, TIRE PRESSURE, SELF-CONTAINED: For testing air inflated tires, calibrated 20 to 130 lb rg, 2 lb smallest grad div, 15 to 35 deg mtg angle dual ft type, 5 1/2 in lg straight ext, 11 in lg, w/o pocket clip.



FSN 4910-204-3170

HAMMER, HAND: Machinist's ballpeen, 8 oz nom head wt, w fiberglass handle.



FSN 5120-061-8541

HANDLE, FILE, WOOD: Mdm sz, 1 1/4 in nom dia o/a, 4 1/2 in nom lg o/a.



FSN 5110-263-0349

HANDLE, FILE, WOOD: Sm sz, 1 in nom dia o/a, 4 in nom lg o/a.

FSN 5110-263-0342

HANDLE, SOCKET WRENCH: (when exhausted use FSN 5120-240-1418)



FSN 5120-288-6539

HANDLE, SOCKET WRENCH: Brace style, 250 in nom size dr end, 12 in min, 16 1/2 in max lg o/a.

FSN 5120-240-1418

HANDLE, SOCKET WRENCH: Brace (speeder) type, 3/4 in dr end, 14 in min to 18 in max lg o/a.

FSN 5120-237-4969

HANDLE, SOCKET WRENCH: Hinged (flex) type, 1/4 in sz dr end, 4 1/2 in min, 6 in max nom lg o/a.



FSN 5120-221-7960

HANDLE, SOCKET WRENCH: Hinged (flex) type, 3/4 in sz dr end, 7 in min to 10 in max lg o/a.

FSN 5120-240-5396

HANDLE, SOCKET WRENCH: Ratchet type, reversible, 1/4 in sz dr end, 4 in min in lg o/a.



FSN 5120-221-7957

HANDLE, SOCKET WRENCH: Ratchet type, reversible, 3/8 in sz dr end, 6 in lg o/a.

FSN 5120-240-5364

HANDLE, SOCKET WRENCH: Spin type, 1/4 in sz dr end, 4.625 in min to 6 in max lg o/a.



FSN 5120-242-3256

HANDLE, SOCKET WRENCH: spin style, .375 in nom size dr end, 5 1/2 in nom lg o/a.

FSN 5120-288-6514

HOLDER, INSERTED HAMMER FACE: Screw-in face, 1 in dia face, 9 oz nom wt, w/o inserts, 2 in head lg, fiberglass hdl, 11 in lg.



FSN 5120-903-8546

HOLDER, SCREWDRIVER BIT, FEMALE SQUARE DRIVE: 1/4 in nom dr, 1/4 in nom hex socket.



FSN 5120-528-2891

HOLDER, SCREWDRIVER BIT, FEMALE SQUARE DRIVE: 3/8 in nom dr, 1/4 in nom hex socket.

FSN 5120-528-2892

HOLDER, SCREWDRIVER BIT, FEMALE SQUARE DRIVE: 3/8 in nom dr, 5/16 in nom hex socket.

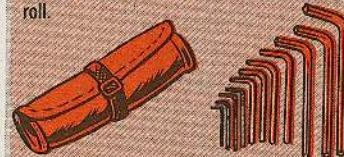
FSN 5120-331-5502

KEY, SOCKET HEAD SCREW: Hex, L-type hdl, .107 in min, .109 in max across flats, 39/64 in min, 51/64 in max short arm lg, 2 1/32 in min, 2 7/32 in max, lg arm lg, w/o hand-grip on hdl.



FSN 5120-889-2162

KEY SET, SOCKET HEAD SCREW: Hex, L-type hdl, 11 keys, .050 to 3/8 in w across flats, w roll.



FSN 5120-595-9244

KEY SET, SOCKET HEAD SCREW: Splined dr end, L-type hdl, 6 keys, .060 to .144 in dia, w case.



FSN 5120-585-6257

KNIFE, POCKET: 1 cutting blade 2 3/4 in lg w screwdriver, wire scraper and clevis, smooth plastic hdl.



FSN 5110-240-5943

MAGNIFIER:
No. 81-23-65.



FSN 6650-133-7743

MIRROR, INSPECTION: 1 1/4 in dia PORM 1/16 in, 7 in min, 9 in max lg.



FSN 5120-448-2455

MIRROR, INSPECTION: 2 1/2 in lg by 1 1/4 in w mirror, 16 in nom lg.

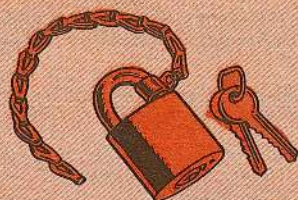
FSN 5120-618-6902

OILER, HAND: 4 to 6 oz cap, internal pump pressure fed, 6 in lg spout.



FSN 4930-262-8870

PADLOCK: Pin tumbler type mech, 5000 key changes, 1 1/2 in w, 1 1/4 in h, 3/4 in shackle clnc, w clevis and chain.



FSN 5340-682-1508

5000
KEYS
?

PLIERS: Duckbill, 8 in nom sz.



FSN 5120-595-9519

PLIERS: Lg rd nose (chain) w cutter, 6 in nom sz.



FSN 5120-247-5177



PLIERS, DIAGONAL CUTTING: 7 1/2 in sz.



FSN 5110-293-3210

YUP--
MOONLIGHT
REQUISITIONING
IS GETTING
TOUGHER ALL
TH' TIME!



PLIERS, SLIP JOINT: Angle nose, multiple tongue and groove, w/o insulated hdles, 10 in nom sz.



FSN 5120-278-0352

PLIERS, SLIP JOINT: Straight nose, combination, w/ cutter, w/o insulated hdles, 8 in nom sz.



FSN 5120-223-7397

PLIERS, SLIP JOINT: Straight nose, comb w/ cutter, insulated handles, 10 in nom sz.



FSN 5120-223-7398



PUNCH, CENTER, SOLID: 5/32 in min dia at top of tapered pt, 3/8 in min stock dia, 4 in lg o/a.



FSN 5120-293-3509

PUNCH, DRIVE PIN: Straight, 1/16 in dia pt, rd, 1/2 in min lg pt.



FSN 5120-240-6082

PUNCH, DRIVE PIN: Straight, 3/8 in dia pt, rd, 3/4 in min lg pt.

FSN 5120-242-5966

PUNCH, DRIVE PIN: Tapered, 5/16 in dia pt, rd, 2 1/4 in nom taper lg.



FSN 5120-222-1906

REPAIR TOOL, PNEUMATIC TIRE VALVE: For std tire valve.



FSN 5120-308-3809

RETRIEVING TOOL, MAGNETIC: Telescoping type, 16½ in min closed lg, 26 in max lg o/a.



FSN 5120-545-4268

RULE, STEEL, MACHINIST'S: 6 in lg, ½ in w, 1/64 in thk, grad in 1/100, 1/64, 1/32, 1/10 in units, rh reading.



FSN 5210-971-8827

SCREW STARTER, HAND: Rotating wedge grip, plastic hdl, 3/16 in w tip, 1¼ in lg blade.



FSN 5120-278-0325

SCREW STARTER, HAND: No. SN9.



FSN 5120-832-6221

SCREWDRIVER, CROSS TIP: Phillips tip, plastic hdl, No. 1 sz tip, 1 in lg blade.



FSN 5120-224-7370

SCREWDRIVER, CROSS TIP: Phillips tip, plastic hdl, No. 1 sz tip, 3 in lg blade.

FSN 5120-240-8716

SCREWDRIVER, CROSS TIP: Phillips tip, plastic hdl, No. 2 sz tip, 4 in lg blade.

FSN 5120-234-8913

SCREWDRIVER, CROSS TIP: Phillips tip, plastic hdl, No. 3 sz tip, 6 in lg blade.

FSN 5120-234-8912

SCREWDRIVER, CROSS TIP: Phillips tip, plastic handle, No. 4 sz tip, 8 in lg blade.

FSN 5120-224-7375

SCREWDRIVER, FLAT TIP: Plastic hdl, flared tip, 7/32 in w tip, 1 in lg blade.

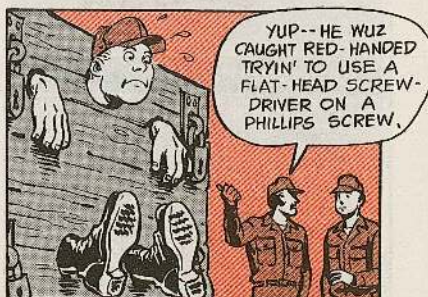


FSN 5120-222-8866

SCREWDRIVER, FLAT TIP: Plastic hdl, wrench grip, ¼ in w flared tip, 4 in lg blade.



FSN 5120-278-1282



SCREWDRIVER, FLAT TIP: Plastic hdl, wrench grip, 5/16 in w flared tip, 6 in lg blade.

FSN 5120-278-1283

SCREWDRIVER, FLAT TIP: Plastic hdl, wrench grip, ¾ in w flared tip, 8 in lg blade.

FSN 5120-278-1280

SCREWDRIVER, OFFSET: Opposite ends, each offset tipped, ¼ in w flat tip, 4¼ in lg o/a.

FSN 5120-287-2130



SCREWDRIVER, OFFSET: Sgle offset, sgle tip ea end, Phillips type cross tip, 4 in lg o/a.

FSN 5120-240-5228

SOCKET, SOCKET WRENCH: Deep style, ¼ in sq dr, 12-pt, 7/32 in opng, thin wall, chrome-plated finish.

FSN 5120-948-3214



SOCKET, SOCKET WRENCH: ¼ in sq dr, cross shape, ¾ in wrench opng, designed for ¼ in wingnut.



FSN 5120-542-4751

SOCKET, SOCKET WRENCH: ¼ in sq dr, 12-pt, 3/16 in opng, thin wall.



FSN 5120-935-7483

SOCKET, SOCKET WRENCH: Reg style, ¼ in nom size sq dr, 12 pt 7/32 in nom wrenching sz.

FSN 5120-935-7484

SOCKET, SOCKET WRENCH: ¼ in sq dr, 12-pt, ¼ in opng, thin wall.

FSN 5120-935-7485

SOCKET, SOCKET WRENCH: ¼ in sq dr, 12-pt, 9/32 in opng, thin wall.

FSN 5120-935-7486



SOCKET, SOCKET WRENCH: $\frac{1}{4}$ in sq dr, 12-pt 5/16 in opng, thin wall.



FSN 5120-935-7487

SOCKET, SOCKET WRENCH: $\frac{1}{4}$ in sq dr, 12-pt, 11/32 in opng, thin wall.

FSN 5120-935-7488

SOCKET, SOCKET WRENCH: $\frac{1}{4}$ in sq dr, 12-pt, $\frac{1}{2}$ in opng, thin wall.

FSN 5120-935-7489

SOCKET, SOCKET WRENCH: $\frac{1}{4}$ in sq dr, 12-pt, 7/16 in opng, thin wall.

FSN 5120-935-7490

SOCKET, SOCKET WRENCH: $\frac{3}{8}$ in sq dr, 8-pt, 9/32 in opng.

FSN 5120-180-1015

SOCKET, SOCKET WRENCH: $\frac{3}{8}$ in sq dr, 12-pt, $\frac{1}{2}$ in opng.

FSN 5120-935-7410

SOCKET, SOCKET WRENCH: $\frac{3}{8}$ in sq dr, 12-pt, 7/16 in opng.

FSN 5120-935-7411

SOCKET, SOCKET WRENCH: $\frac{3}{8}$ in sq dr, 12-pt, $\frac{1}{2}$ in opng.

FSN 5120-935-7412

SOCKET, SOCKET WRENCH: $\frac{3}{8}$ in sq dr, 12-pt, 9/16 in opng.

FSN 5120-935-7413

SOCKET, SOCKET WRENCH: $\frac{3}{8}$ in sq dr, 12-pt, $\frac{1}{2}$ in opng.

FSN 5120-935-7414

SOCKET, SOCKET WRENCH: $\frac{3}{8}$ in sq dr, 12-pt, 11/16 in opng.

FSN 5120-935-7415

SOCKET, SOCKET WRENCH: $\frac{3}{8}$ in sq dr, 12-pt, $\frac{3}{4}$ in opng.

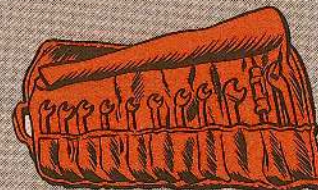
FSN 5120-935-7416

TOOL BOX, PORTABLE: Steel, 18 in lg, 10 $\frac{1}{2}$ in w, 13 in h o/a, excl projections, w 4 fixed trays, closing facilities and nameplate.



FSN 5140-289-8911

TOOL KIT, AUTOMOTIVE ELECTRICAL: c/o 9 double hd opn end midget wrenches, pliers, screwdriver, roll.



FSN 5180-422-8594

DON'T BE GUILTY
OF CAUSING
FOD!

MAKE SURE
EACH TOOL IS
BACK IN ITS
PROPER
PLACE.



UNIVERSAL JOINT, SOCKET WRENCH: $\frac{1}{4}$ in sq dr.



FSN 5120-243-1686

UNIVERSAL JOINT, SOCKET WRENCH: $\frac{3}{8}$ in sq dr.

FSN 5120-224-9215

WRENCH, BOX: Dble offset, dbl head, hex or 12-pt, $\frac{1}{4}$ and 9/32 in opngs, 3 $\frac{1}{2}$ in min, 4 $\frac{1}{2}$ in max lg o/a.



FSN 5120-293-0122

WRENCH, BOX: Angular offset dbl head, 12-pt, 5/16 and $\frac{3}{8}$ in opngs, 4 in min, 5 in max lg o/a. (When exhausted use FSN 5120-935-7362).



FSN 5120-184-8602

WRENCH, BOX: Angular offset dbl head, 12-pt, $\frac{3}{8}$ and 7/16 in opngs, 6 $\frac{1}{2}$ in min, 8 5/16 in max lg o/a. (When exhausted use FSN 5120-947-3535).

FSN 5120-224-3146

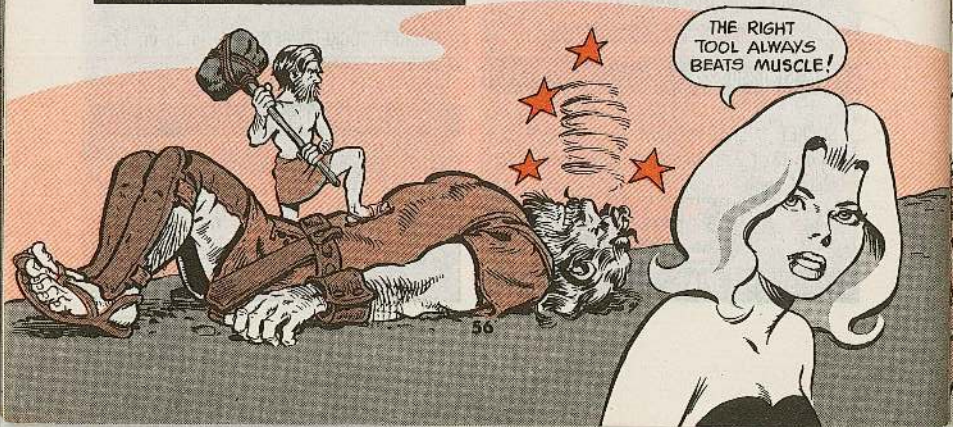
WRENCH, BOX: Angular offset dbl head, 12-pt, $\frac{1}{2}$ and 9/16 in opngs, 7 $\frac{1}{2}$ in min, 9 $\frac{1}{2}$ in max lg o/a. (When exhausted use FSN 5120-947-3533).

FSN 5120-277-3364

WRENCH, BOX: Angular offset dbl head, 12-pt, $\frac{1}{2}$ and 11/16 in opngs, 9 7/16 in min, 11 in max lg o/a. (When exhausted use FSNs 5120-177-7066 & 5120-177-7082).

FSN 5120-293-0081

THE RIGHT
TOOL ALWAYS
BEATS MUSCLE!



WRENCH, BOX: thin wall, angular offset, dble head, 12-pt, 7/32 & ¼ in opngs, 5½ in min, 8 in max lg o/a.



FSN 5120-935-7358

WRENCH, BOX: (When exhausted use FSN 5120-555-0998).

FSN 5120-947-3538

WRENCH, BOX: thin wall, angular offset, dble head, 12-pt, ¼ & 5/16 in opngs, 7 in min, 8 in max lg o/a.

FSN 5120-555-0998

WRENCH, BOX: thin wall, angular offset, dble head, 12-pt 5/16 & ¾ in opngs 7 in min, 8 in max lg o/a.

FSN 5120-935-7362

WRENCH, BOX: thin wall, angular offset, dble head, 12-pt, ¾ & 7/16 in opngs, 8 in min, 9 in max lg o/a.

FSN 5120-947 3535

WRENCH, BOX: thin wall, angular offset, dble head, 12-pt, ¼ & 9/16 in opngs, 8½ in min, 10½ in max lg o/a.

FSN 5120-947-3533

WRENCH, BOX: thin wall, angular offset, dble head, 12-pt, ¾ & ¾ in opngs, 10½ in min, 11½ in max lg o/a.

FSN 5120-177-7066

WRENCH, BOX: thin wall, angular offset, dble head, 12-pt, 11/16 & 13/16 in opngs, 11½ in min, 12½ in max lg o/a.

FSN 5120-177-7082

WRENCH, BOX: angular offset dble head, 12-pt, ¾ & ¾ in opngs, 10½ in min, 13½ in max lg o/a.

FSN 5120-222-1592

WRENCH, OPEN END, ADJUSTABLE: Sgle head, 0 to .947 in min jaw opng, 8 in nom lg o/a.



FSN 5120-240-5328

ALWAYS PUSH OR PULL AGAINST THE STATIONARY JAW OF AN ADJUSTABLE OPEN WRENCH!



WRENCH, OPEN END, FIXED: dbl head, 15 deg angle, 75 or 80 deg larger angle, 15/64 in opng, 7/64 in max thk of head, 3 in min lg o/a.



FSN 5120-184-8444

WRENCH, OPEN END, FIXED: Dbl head, 15 deg angle, 75 or 80 deg larger angle, 9/16 in opng, 3/16 in max thk head, 4 ¼ in min lg o/a.

FSN 5120-184-8543

WRENCH, OPEN, FIXED: Dbl head, 15 deg angle, 75 or 80 deg larger angle, 7/16 in opng, 11/64 in max thk of head, 4 in min lg o/a.

FSN 5120-184-8541

WRENCH, OPEN END, FIXED: Dbl head, 15 deg angle, 75 or 80 deg larger angle, ½ in wrench opng, 11/64 in max thk of head, 4 in min lg o/a.

FSN 5120-288-8216

WRENCH, OPEN END, FIXED: Dbl head, 15 deg angle, 3/16 and ¼ in opngs, 11/64 in max thk of head, 3 in min lg o/a.



FSN 5120-228-9527

WRENCH, OPEN END, FIXED: Dbl head, 15 deg angle, 5/16 and ¾ in opngs, 13/64 in thk of head, 3½ in min lg o/a.

FSN 5120-277-2307

WRENCH, OPEN END, FIXED: Dbl head, 15 deg angle, 7/16 and ½ in opngs, ¼ in max thk of head, 5 in min lg o/a.

FSN 5120-187-7123

WRENCH, OPEN END, FIXED: Dbl head, 15 deg angle, 9/16 and ¾ in opngs, 19/64 in max thk of head, 6 in min lg o/a.

FSN 5120-187-7126

WRENCH, OPEN END, FIXED: Dbl head, 15 deg angle, 11/16 and 25/32 in opngs, 11/32 in max thk of head, 7 in min lg o/a.

FSN 5120-184-8558

WRENCH, OPEN END, FIXED: Dbl head, 15 deg angle, ¾ and 13/16 in opngs, ¾ in thk of head, 8 in min lg o/a.

FSN 5120-187-7129

WRENCH, PLIER: Straight jaw, 7 in nom lg.



FSN 5120-277-4243

HEY, SARGE!
YOU WERE RIGHT!
I DO HAVE
BOX WRENCH
FSN 5120-
555-0988!

HOO-RAY!

NOW -- WHEN YOU PUT ALL
YER TOOLS BACK, HOW 'BOUT
ORGANIZIN' 'EM SO YOU CAN
FIND SOMETHIN'??!

NOW IN INSTALLATION KITS...

MISSING

MOUNTS NO MYSTERY

I NEED AN MT-1029 MOUNT, CONNIE-- BUT I DON'T THINK I NEED IT THAT BADLY...

WELL, YOU MIGHT TRY ASKING YOUR SUPPLY-TYPE TO SUBMIT A PROJECT CODE LRA REQUISITION!...

RADIO SET
MOUNTS FOR
AN/VRC-12 SERIES
AN/VRC-53-64 OR
AN/GRC-125-160 SERIES
INQUIRE:
ADDAMMS HOUSE
HRS: 12 MIDNITE-4AM

You say you got a new AN/VRC-12 series, AN/VRC-53, -64 or AN/GRC-125, -160 radio set, and its MT-1029 or MT-1898 mount is missing?

Don't sweat it.

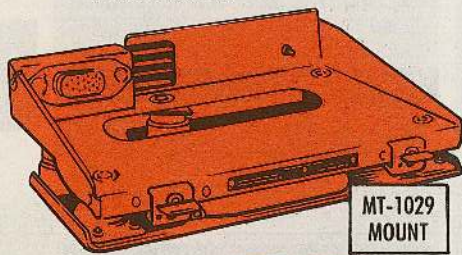
Those mounts are being taken away from the radio sets and put in with the vehicular installation kits.

The kits will list the mounts in a revised SB 11-131 (Jul 74). The kits are given Line Item Numbers (LIN's) in SB 700-20 (Dec 73).

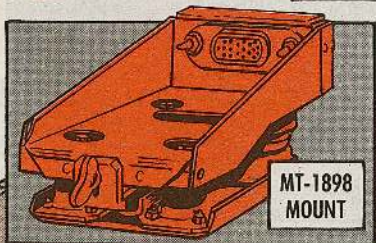
Radio sets mounted in specific vehicles will drop their LIN identities in SB 700-20, and only one LIN will be listed for each radio.

Like, an AN/VRC-46 will have one LIN instead of the 20 or so LIN's it has now.

FOR
WHEELED
VEHICLES--YOU
NEED BOTH THE
RADIO SET AND
AN INSTALLATION
KIT!



MT-1029
MOUNT



MT-1898
MOUNT

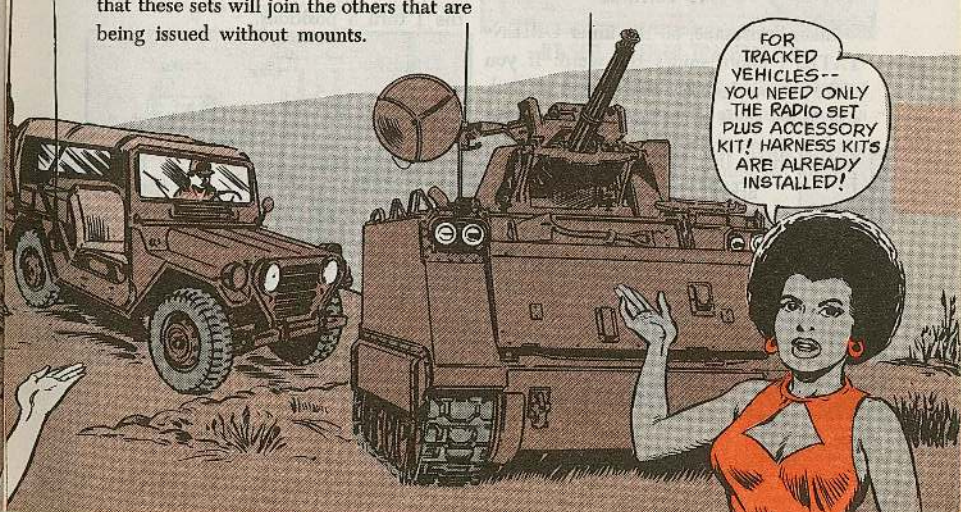


So, if you wind up with a radio set with its mount missing, just ask your supply-type to get you one by submitting a Project Code LRA requisition.

Should you have an AN/VRC-46, -47 or -49 on back order, you'll still get 'em with the mounts through June 74. After that these sets will join the others that are being issued without mounts.

During changeover period, through June 74, you might wind up with two mounts for one radio set. Get 'er back into the supply system by turning in the extra mount.

This switch-over info is spelled out in DA Msg DALO-SMS-D 201344Z Feb 74.



FOR
TRACKED
VEHICLES--
YOU NEED ONLY
THE RADIO SET
PLUS ACCESSORY
KIT! HARNESS KITS
ARE ALREADY
INSTALLED!

HEY, YOU TIPSY-TYPES!
TAKE A LOOK AT THIS...

AN/TPS-25
RADAR SET...

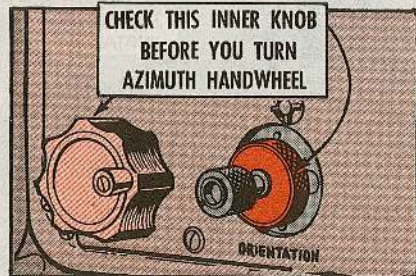
KEEP TIPSY



Before you go puttin' up that big mushroom, make some quick mental notes so you won't get puffed up with a bunch of PM problems.

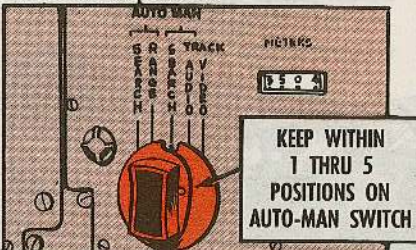
C-2715 CONTROL

Like, frinstance, on the inner ORIENTATION knob, snug's the word. If you make 'er too tight you could wind up with a stripped shaft when you try to turn the



knob or when you turn the AZIMUTH handwheel. When the inner knob's too tight, it'll put the skids to the outer knob and fix it so it won't turn either.

Keep that AUTO MAN switch within the 1 thru 5 positions.

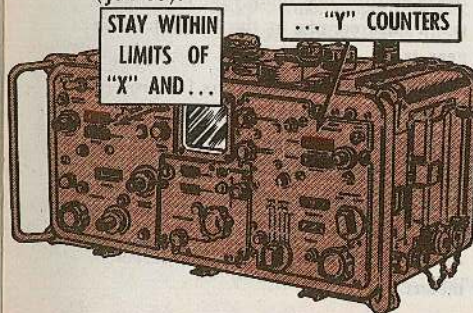


Forcing past the end stops may keep you from getting back to the positions you want. You just might get blown fuses from crossed up wires, too.

YOUR TOPS ^{with} PM



Be sure you stay within the limits of the X and Y counters when you turn the X and Y knobs. Otherwise, you'll strip the counters when you turn the AZIMUTH crank. No sweat on the X and Y counters, tho, as long as you stay within the lower and upper (60,000 meters) limits like it says in para 69 in TM 11-5840-217-10 (Jun 59).



MD-344 MODULATOR

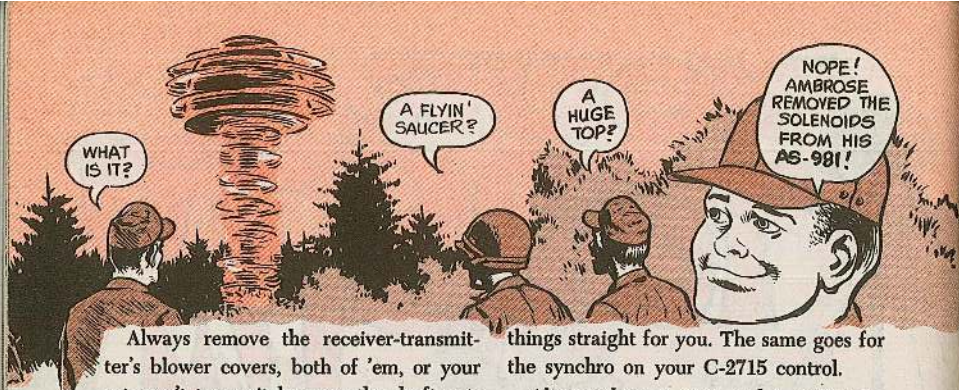
Since that K504 time delay relay is so sensitive, keep your hands off. 'Cause the least bit of turning on the relay's screw head can speed up or slow down the 5-minute relay. Just as little as 15 seconds off can damage the magnetron tube, the relay or other components in the high-voltage line.



RT-500 RECEIVER-TRANSMITTER

Keep the maggie young and palpitating properly with a clean and carbon-free pedestal air circulation boot. A carbon-caked boot will cause maggie to arc, ground out, or worse.





Always remove the receiver-transmitter's blower covers, both of 'em, or your set won't transmit because the draft cut-out switch won't activate.



AS-981 ANTENNA

Messin' around with the synchro's a no-



no. Trying to adjust the sync can really mess up the elevation readings. If you run into synch trouble, get your support to set

things straight for you. The same goes for the synchro on your C-2715 control.

Alining those L-1901 and L-1902 solenoids is a job for your support. If you get 'em out of alinement something's gotta go and it's most likely the F403 fuse. Steer clear of usin' a heavier fuse. Overfusing can really bring on the blues ... and more trouble to your equipment than you'd even want to think about.



If you're hooked on the idea of taking those solenoids out, forget it. Removing the solenoids will let the antenna move freely and the first thing you know you've got a sheared pin in the azimuth drive gear train.

One of the best reminders for protecting those potentiometers in the C-2715 and SN-231 servo data coordinator is stay away with the screwdrivers. The only way to get those pots alined is through the use of the right test equipment. Otherwise, it can throw your range off by hundreds of meters.



Save Resources

If you've been throwing out aircraft oil left in quart cans because it becomes contaminated, maybe you need smaller cans. Ask for these 8-oz cans:

NSN 9150-00-108-5359 MIL-L-7808

NSN 9150-00-180-6266 MIL-L-23699

Semitrailer Pad

Do you need float pads for your semitrailer's landing legs? NSN 2510-00-741-7585 is the board-type used with most semitrailers. It's listed in the Basic Issue Items in several semitrailer TM's, such as TM 9-2330-272-14 (Jun 72). They help prevent that sinking feeling.

M200 Launcher Washout

The M200 launcher for the 2.75-in aircraft rocket is no longer a repairable item. When this 19-tube launcher has 5 tubes that fail to fire, turn it in thru normal supply channels. You'll get a new model M200A1—NSN 1055-00-168-6164.

Fight Rust

Battery boxes and hold-downs get painted with Coating compound, bituminous, 1-Gal, NSN 8030-00-290-5141, to prevent rust and corrosion.

☆U.S. GOVERNMENT PRINTING OFFICE: 1974-758-448/12

O-Level Parts In - 34P

Can't find the brass fittings for your 5-ton truck's air-hydraulic cylinder in TM 9-2320-211-20P (May 73)? You'll just have to borrow your support's TM 9-2320-211-34P (Apr 72). It's got a lot of Organizational Maintenance parts (coded "O") that're net yet in the -20P TM.

Howitzer Hazard

Some crews have been using the cannon tube for storage of safety stakes, aiming stakes, etc. This is strictly a no-goodnick idea and yesterday is not too soon to stop doing it. Today may be too late.

Gage For 10-Ton

If you need a new primer pump fuel pressure gage for your M123A1C or M123E2 10-ton tractor truck, order NSN 6620-00-908-6347. It got left out of TM 9-2320-206-20P (Dec 71).

Nuts To Nut Losses

Stop losses of load terminal nuts and grounding-pole nuts from portable generators. Make your own safety clips. Use wire, 0.041 inch, NSN 9505-00-596-1668, or wire, 0.051 inch, NSN 9505-00-596-1666. You can't requisition the clips; they're non-stock.

Would You Stake Your Life ^{night, now} on the Condition of Your Equipment?

WHEN IN DOUBT-

HEY, HERMAN--
QUICK! WHAT
DOES THE
MANUAL
SAY?

BE PATIENT--

I'M LOOKIN'...
I'M LOOKIN'...

Bad Tolz
15 Kilometres
500 Metres

Read
the
MANUAL