

Issue 392

PS

July 1985

THE PREVENTIVE MAINTENANCE MONTHLY



Turning a New Leaf? Watch it!



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ISSUE NO. 392 JULY 1985

FIRE POWER

Thermal Sights	2-3	M2/M3 Bradley	14
M60-Series Tanks	4-6	M113A1/A2	16-19
Track Pad Nuts	7	Chaparral	20
Ammo Feeding	8	HAWK	22
M1 Tanks	10-12	FAAR	26
MX-7777 Suppressor	13		

GROUND MOBILITY

Inspect/		Multifuel Engines	44
Troubleshoot	29	2½-, 5-Ton Trucks	44, 45
CUCV	37, 40	M929/M930	
Multigrade Oil	38, 39	Dump Trucks	46
M1010 Ambulance	40	M915-Series Trucks	47
M880-Series Trucks	41	M977, M985 HEMTTs	48
Gama Goat	42	Wheel Bearings	48

TROOP SUPPORT

MW24C Scoop		JD410 Loader	
Loaders	49	Backhoe	50
D7E/F Cats	49	1.5-, 4-KW Gen	51

AIR MOBILITY

UH/AH, OH-58	52, 53	Nomex Care	55
Hydraulic Dispenser	54	Aviation Messages	55

COMMUNICATIONS

AN/GRC-142, -122	56	SB-3614	62
Commo Shelter	58	AN/PVS-5	63
MX-6707	59	AN/VVS-2	63
SB-22	60		

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
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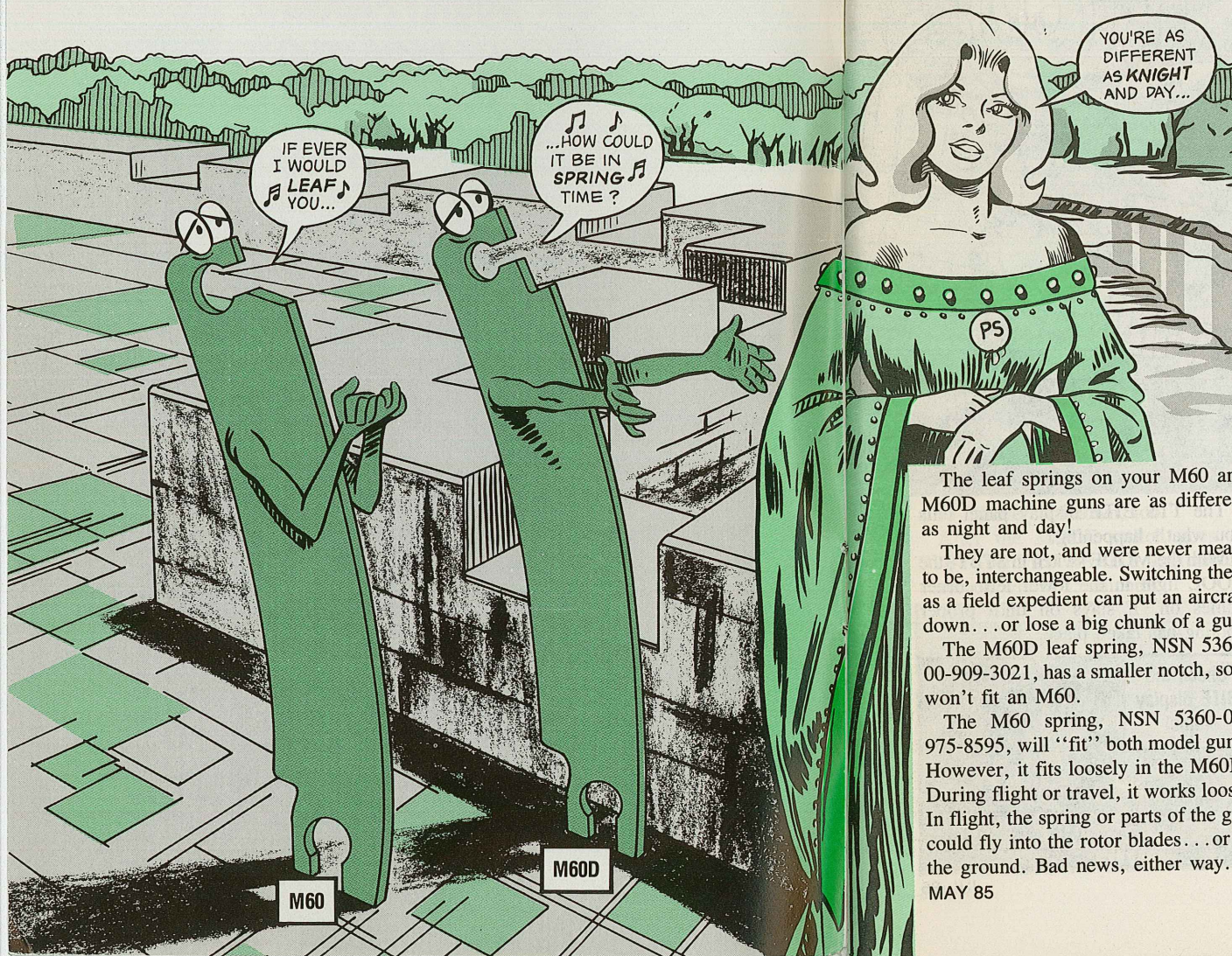
The leaf springs on your M60 and M60D machine guns are as different as night and day!

They are not, and were never meant to be, interchangeable. Switching them as a field expedient can put an aircraft down... or lose a big chunk of a gun.

The M60D leaf spring, NSN 5360-00-909-3021, has a smaller notch, so it won't fit an M60.

The M60 spring, NSN 5360-00-975-8595, will "fit" both model guns. However, it fits loosely in the M60D. During flight or travel, it works loose. In flight, the spring or parts of the gun could fly into the rotor blades... or to the ground. Bad news, either way.

MAY 85



IF EVER
I WOULD
LEAF
YOU...

...HOW COULD
IT BE IN
SPRING
TIME?

YOU'RE AS
DIFFERENT
AS KNIGHT
AND DAY...

M60

M60D

Too Hot's Not Cool!!

YOU WILL TELL ME
WHEN IT'S **COOL** TO
OPERATE, WONCHA?

YOU BETCHA,
THERMA,
YOU CAN COUNT
ON ME!

When you gunners crank up the thermal sight on your M60A3 tank, M1 tank, M2 IFV or M3 CFV, you turn on the heat, too.

An automatic cooling system handles the heat put out by the warming-up sight. It's up to you to make sure it's working.

The three sights signal cooling—two have lights, one is noisy. Ignore those signs and you risk damage to your sight.

Here's what to look for:

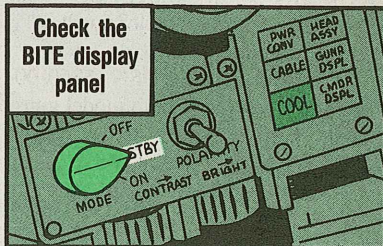
Tank Thermal Sight (TTS)

The M60A3's TTS should take no more than 15 minutes to reach "cool-down."

The TTS BITE display panel tells you what's happening.

With the MODE switch in STBY, the COOL light in the lower left corner comes on. It stays on until proper cooling has taken place.

Check the
BITE display
panel



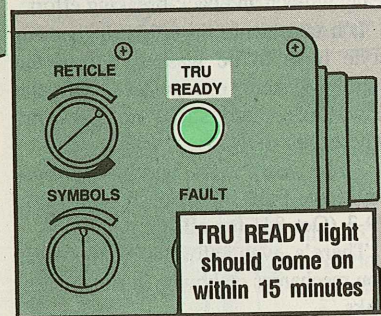
When the COOL light goes out, turn the MODE switch ON and go.

If the COOL light does not go out within 15 minutes, you've got problems. Shut the sight down and tell your mech.

Thermal Imaging System (TIS)

Your M1 Abrams' TIS needs about a 15-minute cool-down, too.

After the MODE switch goes to STBY, the TRU READY light should come on within 15 minutes.



If it doesn't, your system isn't cooling properly. Shut it down and notify maintenance ASAP.

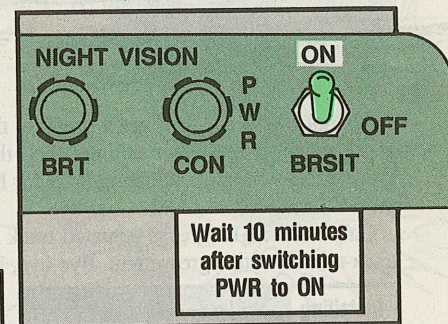
Emergency Operation

The TTS and the TIS will operate before cool-down if combat demands it, but they may be weak and have a poor image. If after 15 minutes the lights show that proper cooling still hasn't taken place, shut down the sight and tell your mech.

Integrated Sight Unit (ISU)

The M2/M3 Bradley sight has no light to clue you in.

After switching PWR to ON, the sight does need about a 10-minute cool-down, tho.

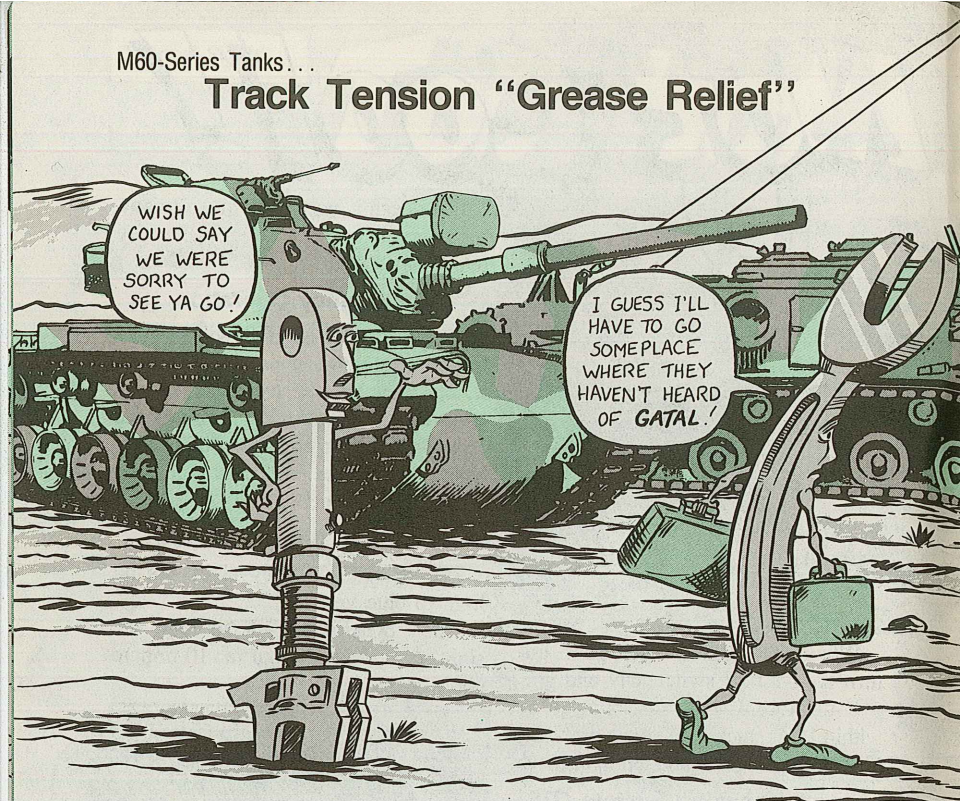


If it isn't cooled, the ISU will not give you an image.

A clue to cooling is the running of the closed cycle cooler. When you switch PWR to ON, you should hear the cooler.

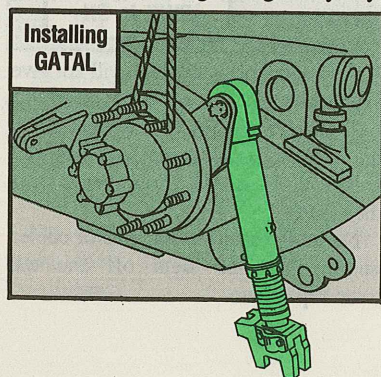
No image after 10 minutes or cooler noise? Shut the sight off and tell your repairman.

Track Tension "Grease Relief"



It's not every day you get a break in the work it takes to keep your track in good shape. Here's something, tho, that'll really help. You can now get grease-operated track adjusting links for M60-series tanks, bridge launchers and the M728 CEV.

Called GATAL (grease actuated track adjusting link), it allows you to adjust track tension with a grease gun. Bye-bye, heavy wrench and back-breaking effort.

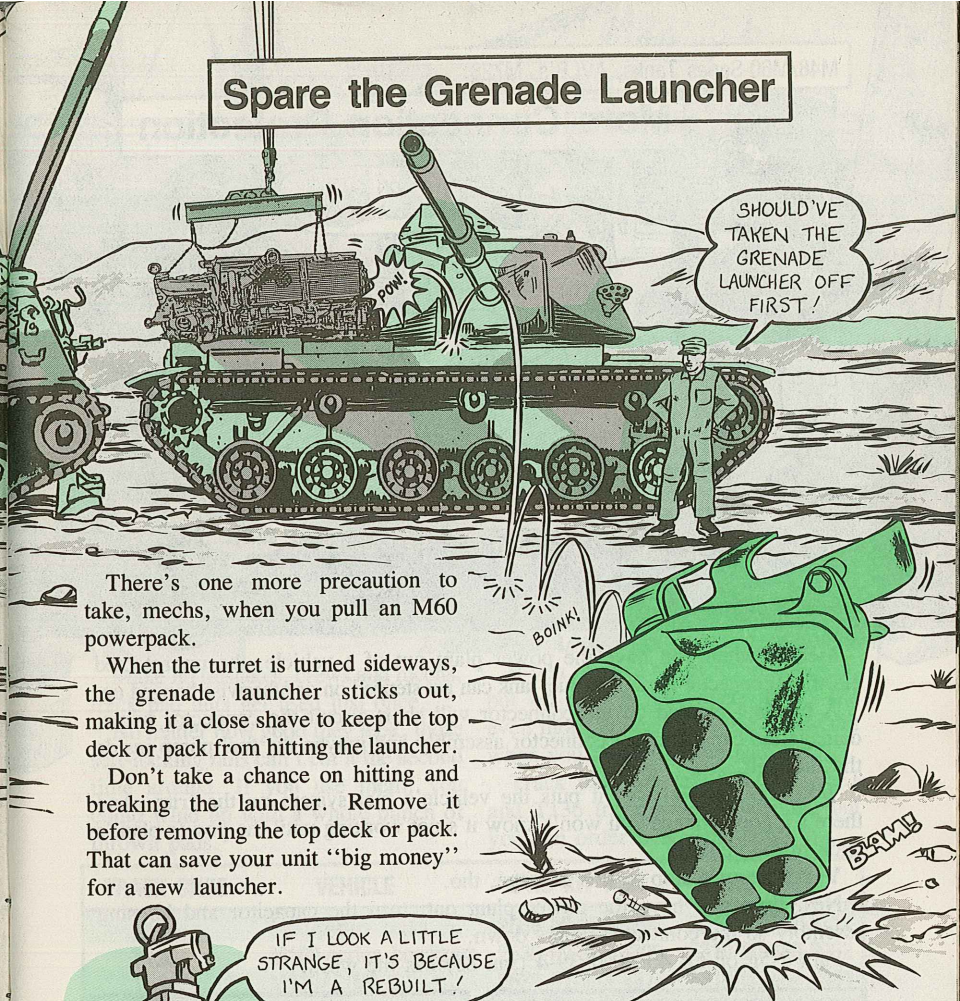


It'll take some time for all the old-style links to be washed out of the supply system everywhere, but the new links could show up any time where you are.

To be ready to use and maintain the links, see Para 3-3(c) of TB 43-0001-39-3 (Oct 84) for all the details.

There's even information there for you mechanics on how to install the new links.

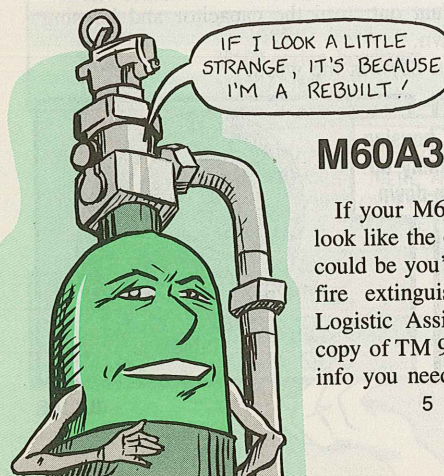
Spare the Grenade Launcher



There's one more precaution to take, mechs, when you pull an M60 powerpack.

When the turret is turned sideways, the grenade launcher sticks out, making it a close shave to keep the top deck or pack from hitting the launcher.

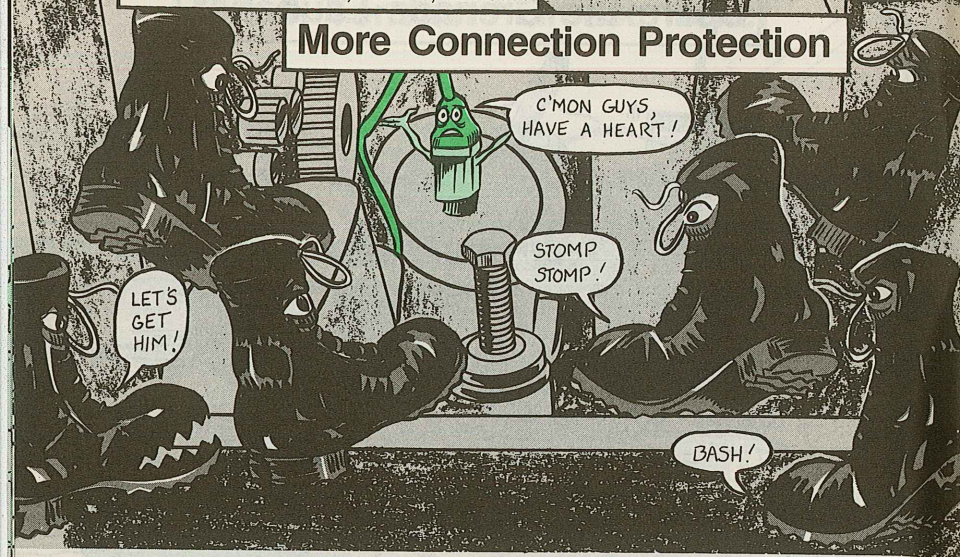
Don't take a chance on hitting and breaking the launcher. Remove it before removing the top deck or pack. That can save your unit "big money" for a new launcher.



M60A3 Extinguisher Parts

If your M60A3's fixed fire extinguisher doesn't look like the one shown in TM 9-2350-253-20P-1, could be you've got a rebuilt -A3 with the old -A1 fire extinguisher. Contact your local TACOM Logistic Assistance Representative. He'll have a copy of TM 9-2350-257-20P-1, which has the parts info you need.

More Connection Protection



Mechs, when you have the power plant out of a vehicle, the unprotected electrical connector on the left fuel tank can get stepped on or otherwise banged up.

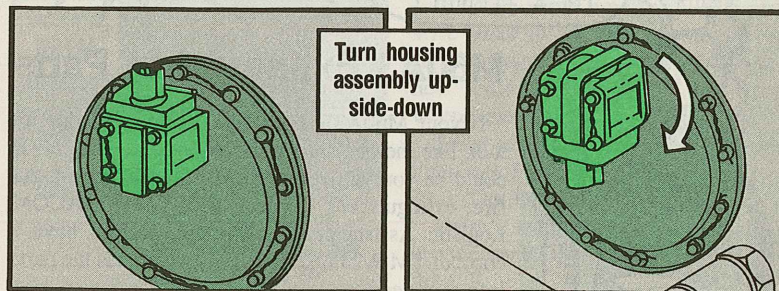
A big foot planted on the connector will short-circuit the connector wires, damage the capacitor and connector assembly and maybe the fuel pump inside the fuel cell.

Whatever the damage, it puts the vehicle's fuel system on the fritz. And there's a good chance you won't know it's not working until the power plant's back in the vehicle.

You can put a stop to this damage, tho.

Next time you have the power plant out, turn the capacitor and housing assembly so the connector points down.

Para 2-5g of TB 43-0001-39-4 (Jan 85) has the word.



Don't Reuse 'em!



Make no mistakes, crews and mechs, track pad nuts get used just once.

No matter how good they look, those self-locking nuts can't cut it the second time around. If you use them, you could wind up with a whole bunch of thrown pads.

If you remove a pad for any reason, put on a new nut—every time. It's even more important to use a new nut when you put on a new pad.

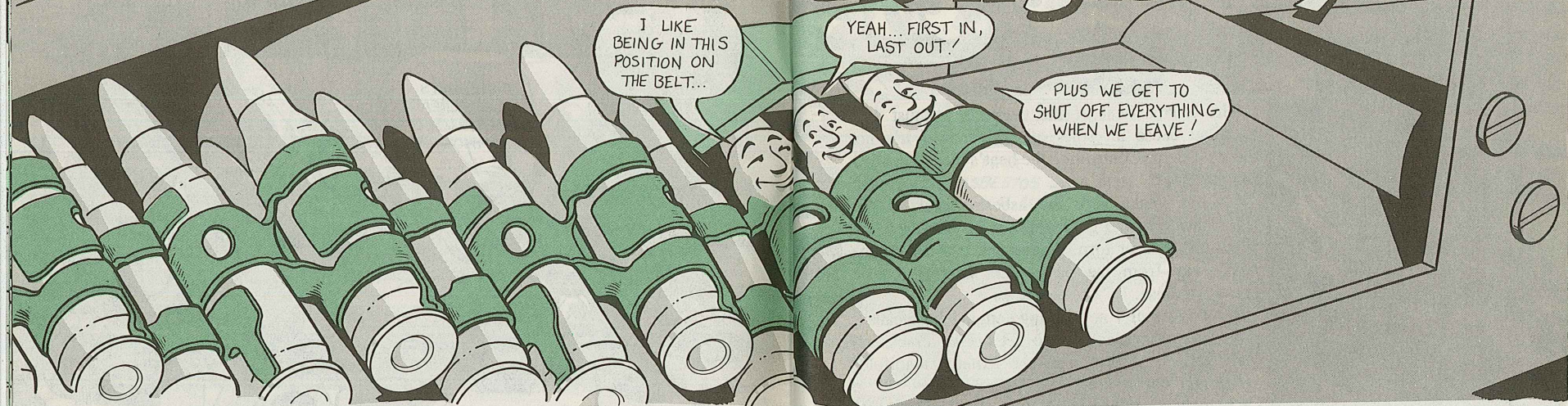
Track pad kits for T142, T132E1 and T136 track shoes have nuts, but you can order nuts separately, too.

TRACK SHOE	VEHICLE	PAD KIT NSN	NUT NSN
T142	M60-series tanks	2530-00-150-5895	5310-01-102-2711
T136	M109-series howitzers	2530-00-397-3302	5310-00-868-8062
T132E1	M110A2/M578	2530-01-053-4374	5310-00-854-6481

FOR T130E1 AND T157 TRACK SHOES, THERE ARE NO KITS. YOU MUST ORDER NUTS EVERY TIME YOU ORDER PADS!

TRACK SHOE	VEHICLE	PAD NSN	NUT NSN
T130E1	M113 FOV	2530-01-130-3366	5310-00-982-6809
T157	M2/M3, MLRS	2530-01-118-5965	5310-01-108-3772

Load 'em the Right Way!

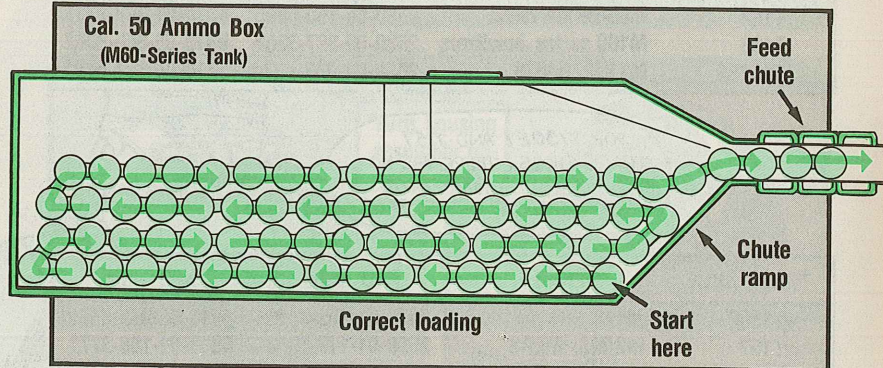


You tankers and CEV crews can prevent jam-ups in your .50-cal machine gun by stowing ammo in the boxes the right way.

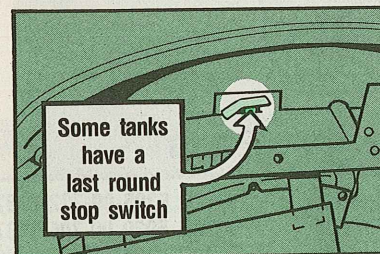
If ammo gets stuck as it enters the track from the feed box, you've probably stowed the ammo backward.

Some of the TM's paint a pretty hazy ammo-stowing picture. In fact, TM 9-2350-257-10-2 (for the M60A1's) and TM 9-2350-222-10-2 (for the CEV's) tell the ammo-stowing procedure wrong. Here's how to do it:

Start stowing ammo in the boxes **RIGHT to LEFT**, with the projectile end and pointing away from you.



- Be sure the projectile end of the third round depresses the last round switch's actuating plunger. (The plunger puts out the tank commander's GUN READY light when he has 20 rounds left on the belt.)
- Position the belt's fourth round on the outside of the retaining clip ramp.
- Follow your -10 to finish loading the ammo box.
- Some ammo boxes have a last round stop switch—some don't. If your ammo box doesn't have a last round switch, finish loading the ammo according to your TM. If your ammo box has a last round switch, secure the first three rounds on the ammo belt under the retaining clip.



If you have feeding problems between the chute and the gun feed opening, have your mech check the alignment. There could be about a 1/4 inch height difference between the chute and opening. That'll need to be adjusted to correct the feeding problem.

Beat the Heat!

The terrific heat of the engine's exhaust system can cause all sorts of problems if it's not directed right. Controlling the heat's direction takes regular PM.

First, make sure the asbestos seal on the inside of the grille door is in place and not worn, crushed or torn. The seal keeps the engine heat away from the oil coolers and oil cooler crossover hose.

If the seal's not sealing, engine heat causes the oil cooler hose to get brittle, crack and leak. Oil could drip onto the exhaust manifold, ignite and start a fire.

Replace a bad seal with NSN 5340-01-099-6331. The directions for installing the new seal are in TM 9-2350-255-20-1-3-4.

Eyeball the oil cooler crossover hose for cracks and wear. If the hose is damaged, replace it with NSN 4720-01-067-9039. Don't touch a hot hose. You can get a bad burn.

Secure the hose so it doesn't touch the exhaust duct. If it touches, loosen the mounting bolts and move it. Retorque the bolts to 70-80 lb-ft. Start the engine and check the hose packings for leaks. **If there's a leak, replace the packings.**

Dome Light Switch Parts

Need parts for the switch used on most combat vehicle domelights? The parts to fit all domelights except those on the M1 tanks, M2/M3 fighting vehicles and MLRS are:

Setscrew	NSN 5305-00-732-0657
Plunger	NSN 5930-00-705-7187
Spring	NSN 5360-00-705-7189
Knob	NSN 5355-00-732-0656
Machine screw	NSN 5305-00-054-6654
Lockwasher	NSN 5310-00-209-0788

MAKE SURE THE
ASBESTOS SEAL IS IN
GOOD CONDITION...



Replace bad seal with
NSN 5340-01-099-6331

... ALSO
CHECK THE OIL COOLER
HOSE BEFORE YOU
FIRE UP YOUR TANK !



Keep hose off exhaust duct!

Stop Fuel Drain Leaks

You can stop the leaks at the rear fuel tank drain plug on your M1 tank with anti-seize tape. Cover all but the two end threads of the plug with tape, NSN 8030-00-889-3535, and reinstall it. Tape on the end threads could contaminate the fuel system. Torque the plug to 110-130 lb-in.

Smoothing the Bumps



If your tank has damaged or missing shock absorber bump stop brackets, you've got a little problem. If you don't take care of it right away, you'll soon have a bigger problem—broken shocks and torsion bars.

Eyeball the bump stop brackets at halts during operation and during after-operation PMCS. Look for cracked, bent or missing brackets.

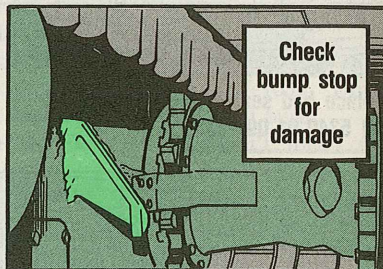
Check the shock absorbers for leaks or a housing that's colder than the rest. A cold housing means the shock's not working. Make sure the shock's oil level is halfway up on the sight gage.

One or more bars may be broken if your M1 tilts to one side or the No. 1 and No. 7 roadwheels and track are off the ground.

If you can lift a roadwheel with a tanker's bar at the No. 2 thru No. 6 arms, chances are a torsion bar is broken.

Report any of these problems to your mech!

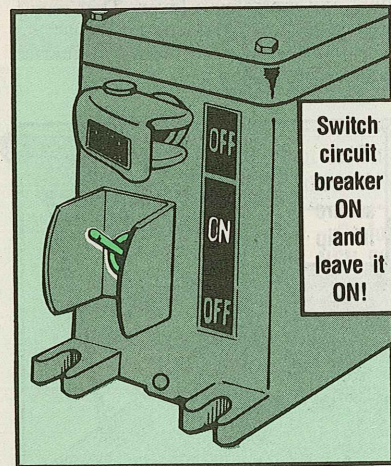
Your mech can replace the bump bracket behind the No. 2 roadwheel on each side of the vehicle with NSN 2530-01-065-6143. But DS replaces bad brackets behind the No. 1 and No. 7 roadwheels.



Suppress Suppressor Switch Switching!



OK, you guys, you've got to stop using your MX-7777 transient suppressor circuit breaker as a radio ON-OFF switch! Switch it on, leave it on and let it do its job.



The suppressor keeps current surges from knocking out your receiver-transmitter and AM-1780 audio-frequency amplifier.

Using the suppressor as an ON-OFF switch for your radio system wears out the switch stop. It will fail you when you need it.

If it fails in the OFF position—no power to run your equipment!

If it fails in the ON position—no protection against power surges.

Follow the instructions in TM 11-5915-224-14 and TM 11-5820-401-10-2 for proper MX-7777 use, and leave the ON-OFF switch alone.

Don't Lock Yourself In!

WHAT'S ALL THAT RACKET?

A.J. LOCKED HIMSELF IN!

HELP! LET ME OUT OF HERE

BANG!

CLANG!

Don't set a trap for yourselves, drivers, when you unlock and open up your hatch from the outside.

If you replace the padlock the way it was when the hatch was locked, the hatch will lock again any time the cover is closed. Thing is, the inside latch will be locked, too—from the outside!

You'll have to climb back through the vehicle and leave through the turret hatches or the ramp door to unlock the hatch.

Your best bet is to either store the padlock inside, or to lock it around the hull mount only—not around both the mount and the release lever. That way, the inside latch will still work.

Lock around hull mount only

Brace-ing for Safety

Stowing the brace for your Bradley's power unit access door? Do it by the book—TM 9-2350-252-10-1—or you're taking a chance on your safety.

Be sure the brace end is securely fastened in its clip. Otherwise, a loose brace could get caught in the control linkages in the power unit compartment. Then control linkages get bound up and won't work right.

Be safe and sure. Doublecheck the brace and clip every time you close the access door.

Stow brace secure in clip

Fight Control Rod Sticking

Drivers, a sticky accelerator pedal is much more than a nuisance. It's a hazard to life and limb. So are balky steering and braking controls.

These problems won't solve themselves—they will only get worse. You need to take action.

If your steering control binds or feels sticky when you're maneuvering, or it takes a lot more foot to work the brake, or the accelerator sticks at any time, let your mechanic know now.

The problem can usually be traced to corroded linkage rod ends. Corrosion in the rod end bearings causes binding and eventual failure.

Your mechanic has the solution—corrosion preventive lubricant. It can be sprayed or brushed on the bearings while the linkage is hand-operated.

The lube is available under these NSN's:

9150-01-079-6124 4-oz bottle
9150-01-054-6453 1-pt trigger sprayer
9150-01-053-6688 1-gal plastic bottle

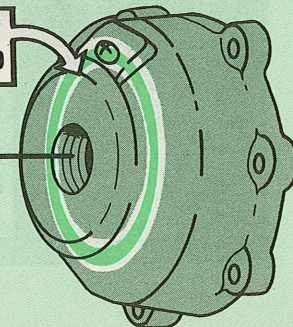
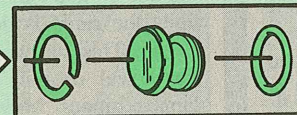
Lube control rod ends

Add Packing to Order

To finish that repair job on your Bradley's roadwheel or idler hubcap, don't forget one preformed packing. When you order hubcap repair kit, NSN 2530-01-104-8941, you don't get the preformed packing you need to re-install the hubcap.

Preformed packing
NSN 5330-01-078-2379

Repair kit parts



Ramp PM is Vital

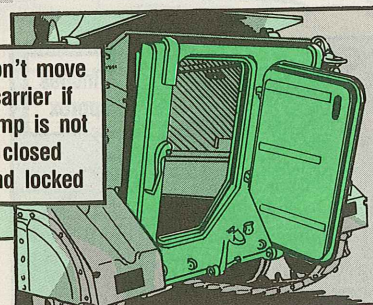
WHERE ARE WE GOING TO STORE ALL THIS GEAR?

WE'LL JUST TIE IT TO THE BACK OF THE RAMP... ER...

IF YOU ABUSE YOUR RAMP, YOU'LL BE IN STORE FOR A LOT OF TROUBLE!

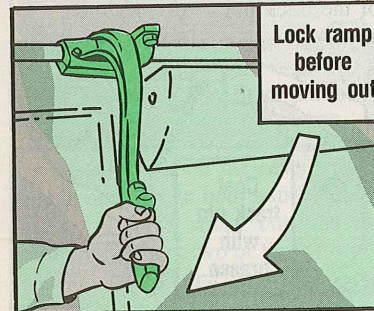
THEIR INGENUITY IS RUNNING RAMPANT!

Don't move carrier if ramp is not closed and locked



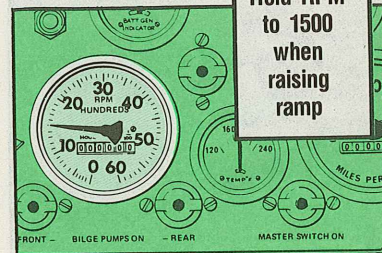
Make sure the ramp is fully up and locked **before** you move out.

Lock ramp before moving out



DON'T RACE THE ENGINE to raise the ramp more quickly. The ramp will raise in 15 seconds at 1,500 RPM. It will come up quicker at higher RPM's, but that's begging for possible damage. Go steady and save the pump and cable.

Hold RPM to 1500 when raising ramp



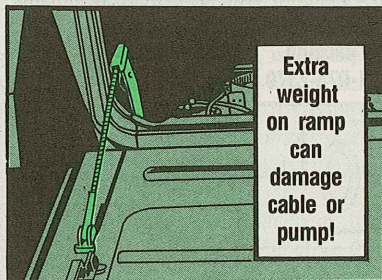
DON'T DROP THE RAMP too hard, or on uneven ground. Obviously, a heavy ramp dropped on uneven ground puts a strain on hinges. So does letting the ramp drop too hard.

Take it easy with the ramp so your carrier can take you when you need to go.

Drivers, ramp maintenance is mighty important. Here are some PM tips:

DON'T STORE EQUIPMENT on the ramp. The ramp is not a storage rack for tent poles, barbed wire and camouflage nets. All that extra weight can break the ramp cable or damage the hydraulic pump.

Extra weight on ramp can damage cable or pump!



The ramp is for getting cargo and crewmen in and out of the vehicle fast, not for carrying things.

DON'T MOVE THE CARRIER while the ramp is down or not fully locked. This can warp the ramp so it won't seal or will break locks and damage hinges. Moving with an open ramp can also break the ramp cable and damage the pump.

Carrier

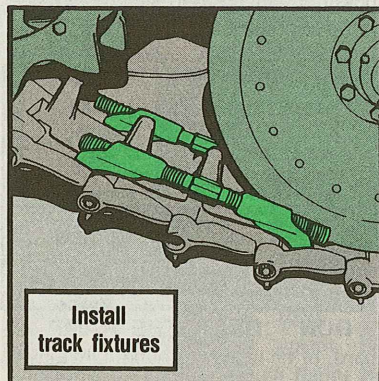
Track Connections

SUCH A
SMOOTH
RIDE...

... NOW
THAT THEY'VE
GOT THE
ANGLE RIGHT!

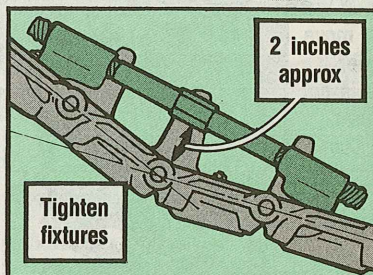
When you put your carrier's track back together, it takes a little "right" angling to get the track pins lined up and rarin' to go. Here's how:

- Install two track fixtures across the shoes you want to connect.



Install
track fixtures

- Tighten the fixtures so there's about two inches between the fixtures and the top of the shoe. This makes the angle about right for getting the pin thru the shoe.



Tighten
fixtures

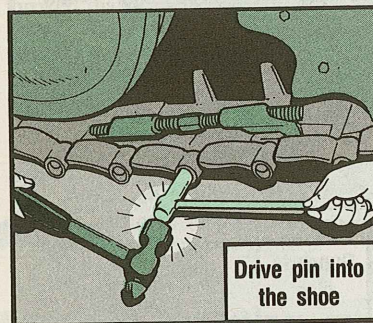
2 inches
approx

- Coat the track pin with oil or grease before you thread a nut on the outer end of the track pin.



Coat
track pin
with
grease

- Drive the track pin into the shoe with a drift pin and a 3-lb ball peen hammer... not a sledgehammer.

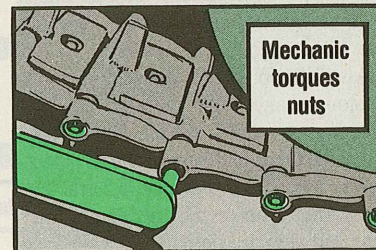


Drive pin into
the shoe

- Install a nut on the other end of the pin and tighten both nuts until 1/8 inch of the pin sticks out past the nuts—that's about two or three threads past the nuts. (At first opportunity have your mechanic torque the M113-series

Tighten
nuts until
1/8 inch
of pin
sticks
out

carrier's track nuts to 115-135 lb-ft and the M548's and -A1's to 120-130 lb-ft.)



Mechanic
torques
nuts

- Loosen and remove the fixtures. Adjust track tension and you're ready to move out.

Stowing It on Your Chaparral



Dufflebags, tarps and other stored gear on your Chaparral launch station can bust up pieces of the system.

For instance, gear stowed in the gunner's compartment might fit OK ...temporarily. However, if the rails are raised by someone who doesn't know about the gear, the gunner's sight is forced into the gear. Scratch one sight.

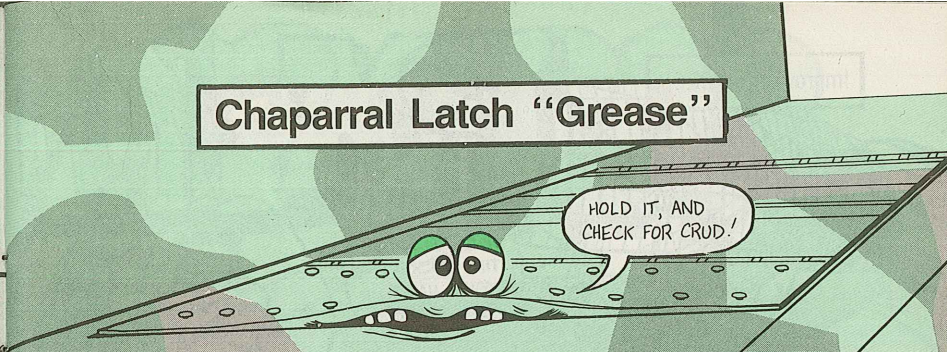
Also, if you don't have enough room to store gear on the blast covers, it's tempting to stow it on the hatches between the turret and engine compartment.

When the turret turns or is retracted, the gunner's step snags the gear. Either gear and step are damaged, or the step tears off and gear is ripped apart.

You've got to stow your gear, but be careful where you put it.



Chaparral Latch "Grease"

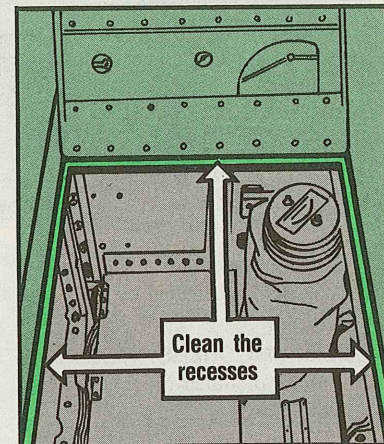


Elbow grease, more times than not, is the cure for sticking latches on hatch covers of your Chaparral System launch platform.

Eye, instead of pry, when latches stick. Raise the hatch and look for objects that might be keeping the hatch from seating.

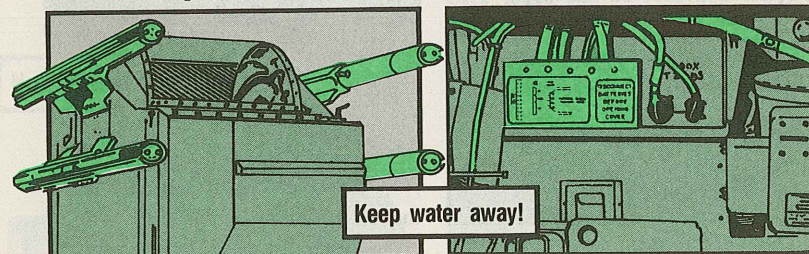
A layer of dust or dirt in the recess next to the platform deck might be enough to prevent seating. Clean it out with a screwdriver edge or a pocket knife.

Do not kick or pry the latch to make it seat. A lot of latches have been broken that way.



Keep It Dry

When you clean your Chaparral System, keep water away from the mount, rails and gunner's compartment, and never let water get into an open rear electrical compartment.



Those areas are loaded with electrical contacts, and water can corrode or short out every one of them.

Think dry and your missiles will fly.

Improved HAWK...

PM from

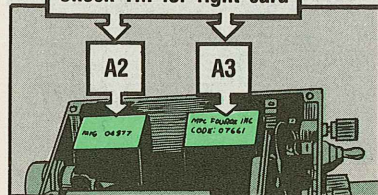
HERE'RE SOME TIPS TO KEEP YOUR HAWK FLYING FREE!

A2 to ROR

Every component of your HAWK missile system is affected by PM... or the lack of it.

COMMO MODULES: Various communications modules use the A2 and A3 circuit cards. But the A2 and A3 are not interchangeable in all commo modules. There're three types of A2 and A3 cards used in the modules. Your radar set may require a different card from your buddy's radar.

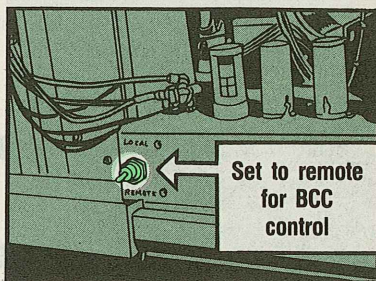
Check TM for right card



The TM on your equipment spells out the type, part number and NSN you need. If you use the wrong cards, your amplifiers won't work.

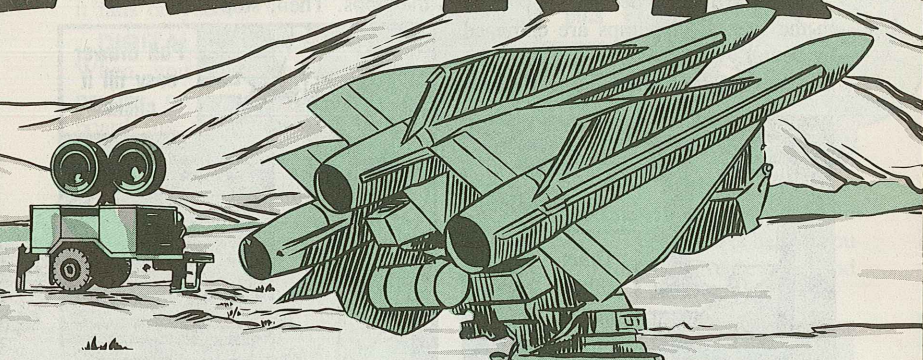
BCC/PAR REMOTE: Before you can take video control in your BCC (battery control central), the LOCAL/REMOTE switch in the pulse acquisition radar (PAR) must first be set to REMOTE. The switch is on the side of the PAR's sweep and video chassis.

If you keep the switch on LOCAL,

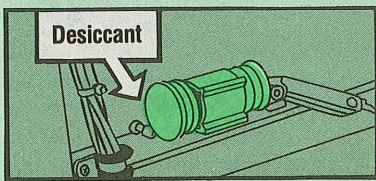


the video sweep in the BCC will be erratic... and useless. Settings on the BCC video control panel will not work.

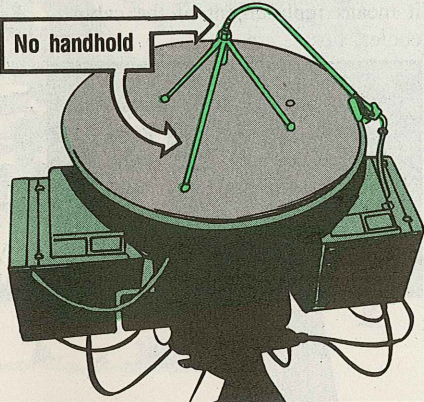
For sweep operation at the PAR, the switch must be set at LOCAL.



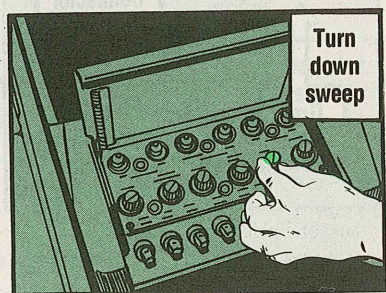
ROR/PAR DESICCANTS: Desiccants (like those in the ROR modulator power supply cabinet) must be changed monthly to prevent valve clog-ups. If valves clog, the radars won't pressurize. See Table 3-1 of TM 9-1430-529-12-1 for checks and replacement.



ROR ANTENNA: The antenna waveguide is not a handhold. If you grab it to boost yourself up on the radar... or just grab it period... you'll bend or break it. Scratch one radar set until it's fixed.

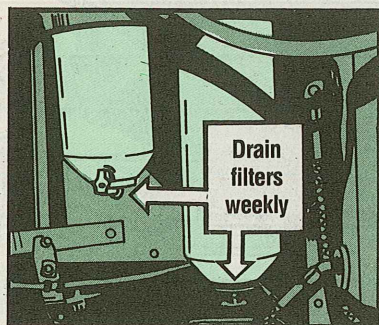


BCC CRT: Before you shut off console power, turn the sweep and video repeat (intensity) knob all the way down. With the intensity full up, CRT tubes can be scorched. They'll turn black.



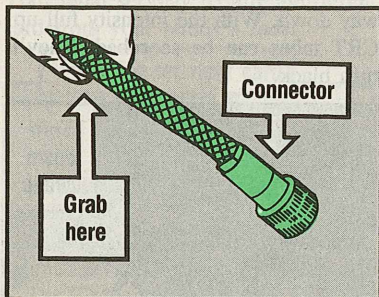
60 KW GENERATORS: Wet power cables hooked from generators to control boxes on HAWK components scorch the pins and even burn out the boxes. Dry 'em off—hook 'em up.

Hard-starting can be caused by water in the fuel. Fuel pumps are damaged by water. To prevent it, drain the primary and secondary filters weekly.



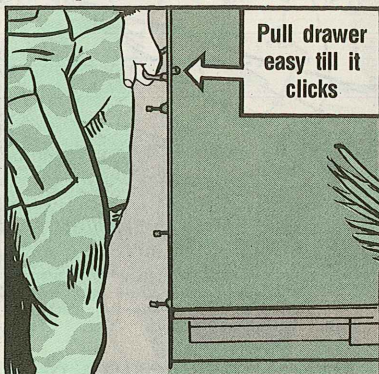
To drain primary filters, just open their draincock valves. You need a 7/16-in wrench for the secondary filters.

CABLE CAUTIONS: When you have to pick up a power cable, do not grab it by the connector. It could still be hooked up and “hot,” and thereby



shock or burn you. Best bet is to grab it at least a foot back from the connector...well back on the insulation.

ICC DRAWERS: If you yank them out, they'll bust their stops. The drawers hit the floor...and you head for maintenance. Pull the drawer out easy-like until you either hear it click...or feel the stops. Then, stop!



YOU NEED A GUIDE: Backing a deuce-and-a-half up to a launcher without a ground guide is an invitation to damage. Most common victims are the sector covers...or A or C ears. Get a guide. The odds are in the truck's favor, since you can't see enough of the launcher to protect it.

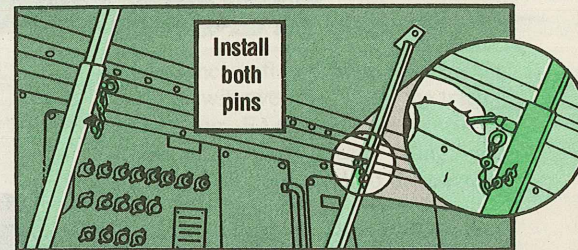
HYPER HIPIR: The only cable going into the cooling cabinet makes an inviting footrest or step. Cool the urge, because if the cable's damaged, it means replacement of the cabinet, cooler, hoses, etc.



• Secure the front door of your HIPIR with two hinge pins. If you use a pin on one side only, it can break or slip out. The door can be damaged, components can be damaged...and you and your buddy can be hurt if it falls on you.

DIGITAL PROBES:

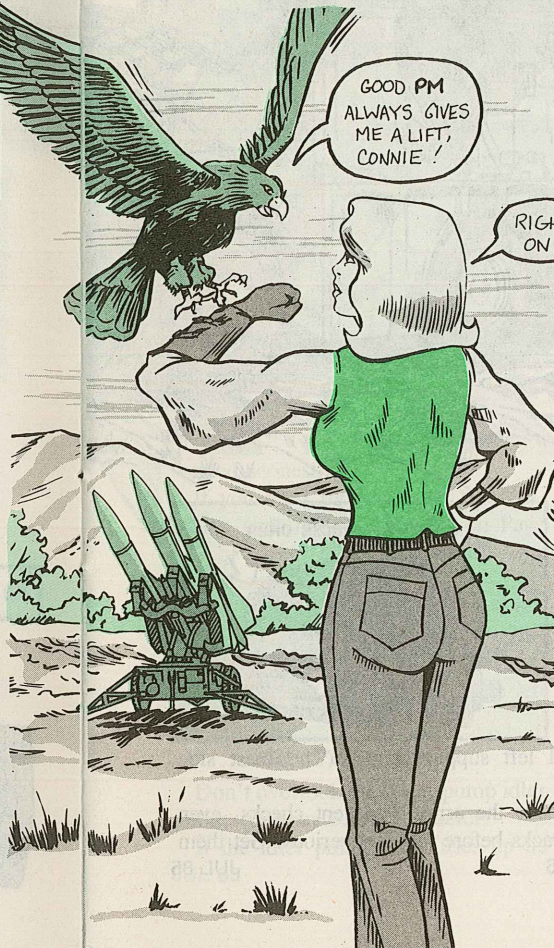
When you use digital probes on your PCP boards, use the right ones. TM 9-4935-542-12 spells 'em out. If you use oversized probes, you can bend pins and strip cards.



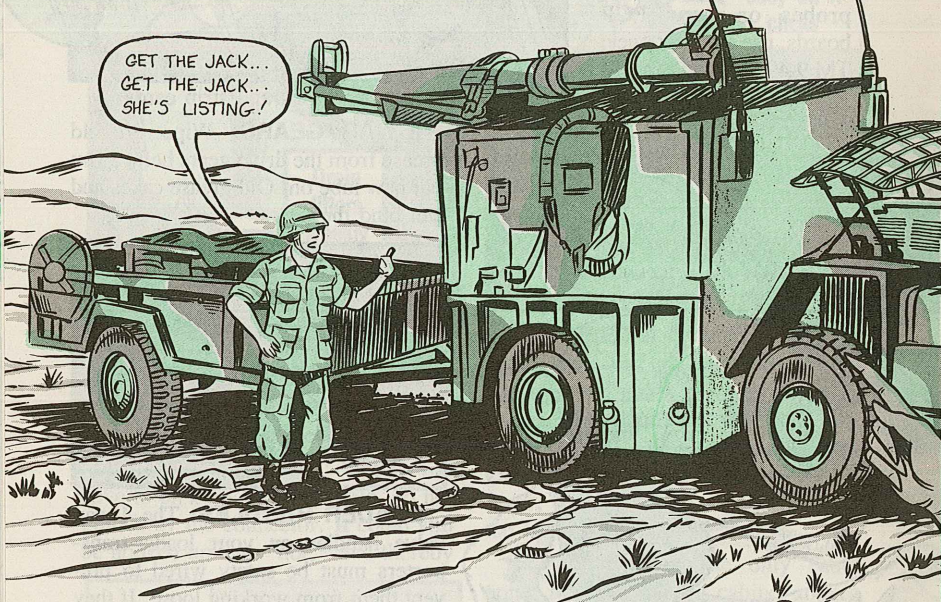
ICWAR GEARS: Wipe off old grease from the drive gears before you put new lube on. Old grease cakes and can bind the gears.



LOADER HANDLES: The 4-way valve handles on your loader-transporters must be safety wired to prevent them from working loose. If they do work loose, you'll have trouble with your crane azimuth and elevation control levers.



FAAR-Gone

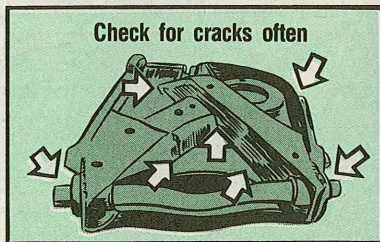


The weight of your FAAR (Forward Area Alerting Radar system) can crack the rear, lower suspension arm of the M561 carrier on rough ground or during field training.

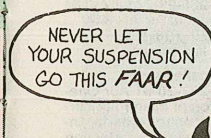
If you don't spot the cracks soon enough, the suspension arms will split open...your FAAR will tilt...and your top-heavy FAAR will hit the dirt.

Cracks occur in both the right and left support arms. (The mast side suffers most.)

The idea is to check for cracks all over the arms. Frequent checks, even more than the TM calls for, will spot cracks before they get serious. Get them



Suspension



welded soonest.

If you need replacements, the illustration and the two Item 9's on Page 132 of TM 9-2320-242-20P can be a little tricky.

Item 9, NSN 2520-01-037-4980, is the right rear arm, in line with the way the carrier attaches to the tractor. Item 9, NSN 2520-01-100-7606, is the left rear arm.

Idler Pulley Check

Don't overlook the water pump idler pulley on your FAAR's tractor.

If the idler pulley shaft uses up its

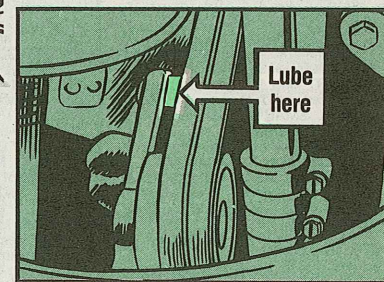
lube, the shaft will seize, the tractor engine will overheat...and the tractor and your FAAR will go nowhere. Since there's no grease fitting, you have to get your mech to disassemble the idler and lube the shaft.



Here's a quick test that'll let you know when lubing is overdue:

Push all the way down on the idler hub (until the belts sag).

Release the hub. The idler spring should pop the idler back up quick-like, and the belts should tighten.



If the idler comes back slowly, or not at all, mechanics should disassemble the idler and apply GAA grease. The instructions are on Pages 6-62 and 6-63 of TM 9-2320-242-20-3-1.

Check 'em out. The arms and idlers will keep your FAAR rollin'.



This is a selected list of recent pubs of interest to organizational maintenance personnel. This list was made from a computer printout provided by the Adjutant General.

TM 3-6665-329-13&P Mar M140 chemical agent alarm
 TM 5-3815-200-23P Feb 3/4 cu-yd clamshell and dragline buckets
 TM 5-3820-233-20P Apr Crushing and screening plant (DED)
 TM 5-3895-219-20P Mar Concrete mixer (GED)
 TM 5-3895-259-24P Dec 84 Bituminous materials (GED) drier-mixer
 TM 5-3895-278-24P Mar Bituminous (GED) heater
 TM 5-4310-374-24 Dec 84 Compressor unit, reciprocating, Model D340STLC-1
 TM 5-4310-375-24P Feb Compressor unit, reciprocating, 15 CFM, 175 PSI, EMD, Model R122RAAB
 TM 9-1015-215-10-HR Mar Mortar, 4.2-inch, M30
 TM 9-1425-588-L Apr LOAP, forward area alerting radar
 TM 9-1425-646-L Oct 84 Pubs for MLRS
 TM 9-2300-422-23&P Feb Army oil analysis sampling valves, army oil analysis program, nonaeronautical equipment
 TM 9-2330-241-14&P Apr 10-ton

flatbed trailer M345
 TM 10-3930-242-20P Apr 85 6,000-lb RT forklifts, MLT-6, MLT-6CH
 TM 55-1520-236-23P-1 Apr AVUM and AVIM parts and tool list AH-1S (Prod)(ECAS)(MC)
 TM 55-1520-236-23P-2 Apr AVUM and AVIM parts and tool list AH-1S (PROD)(EAC)(MC)
 TM 55-1520-237-23-1 Feb AVUM and AVIM wiring data manual for UH-60A
 TM 55-1520-238-23-7 Mar AVUM and AVIM manual for AH-64A
 TM 55-1520-238-MTF Mar AH-64A test flight manual

Miscellaneous

TB 55-1520-237-20-61 Apr One-time inspection of main rotor servo and input control rods for installation of bearing retention devices
 TB 55-1520-242-20-12 Apr One-time SOF inspection of main rotor pitch change link turnbuckle barrels, UH-1H/V and EH-1H/X
 SC 2090-97-CL-E04-HR Jan Aluminum craft repair kit
 SC 4910-95-CL-A72 Dec 84 No. 2 Common shop set (organizational maintenance)
 SC 4940-95-CL-B07-HR Nov 84 Hydraulic systems test and repair
 PAM 750-10 Nov 84 Index of MWO's
 AR 40-5 Jun Preventive maintenance (Medical equipment)

Maintenance Advisories

AMCCOM MA 85-6—Use of Vello to repair M15A1 mask carriers, NSN 4240-00-933-2533, used on M17 series masks, AMSMC-MAR-C 222000Z Feb 85.

AMCCOM MA 85-7—Emergency procedures for long term storage of M8 chemical agent alarm, NSN 6665-00-935-6955, AMSMC-MAR-C 272000Z Feb 85.

AMCCOM MA 85-8—Basis of Issue for M42 Alarm, NSN 6665-00-859-2215 and M13 Decon, NSN 4230-01-133-4124, AMSMC-MAR-C 271500Z Feb 85.

AMCCOM MA 85-13—Problems with use of M8 Chemical Alarm System, AMSMC-MAR-C 051615Z Apr 85.

AMCCOM MA 85-14—TM 3-1040-251-15, Test Set, Flamethrower-Riot Control Agent Dispenser, hydrostatic-volumetric, 6000 PSI, M5, AMSMC-MAR-C 082030Z Apr 85.

AMCCOM MA 85-15—AMCCOM Hotline, AMSMC-MAR-C 121740Z Apr 85.

TROSCOM MA—Incorrect National Stock Number for 30KW Generator Sets, AMSTR-MCT 171900Z Apr 85.

AMC SOU-85-02—Operational, 5/10KW DED Generator Sets, NSN 6115-00-465-1044, (safety hazard when placed in the 120/240 volt single phase mode), AMCSF-E 101800Z Apr 85.

AMC SOU—155mm Howitzer, M114A2 (excessive headspace between firing mechanism and end of obturator spindle causes M1 firing mechanism to blow out of breech assembly), AMCSF-E 081900Z Apr 85.

If you need a maintenance advisory, contact your direct support unit or your local Logistic Assistance Office (LAO).

AUDIO-VISUAL STUFF

Available at battalion or post Learning Center

TEC Lessons

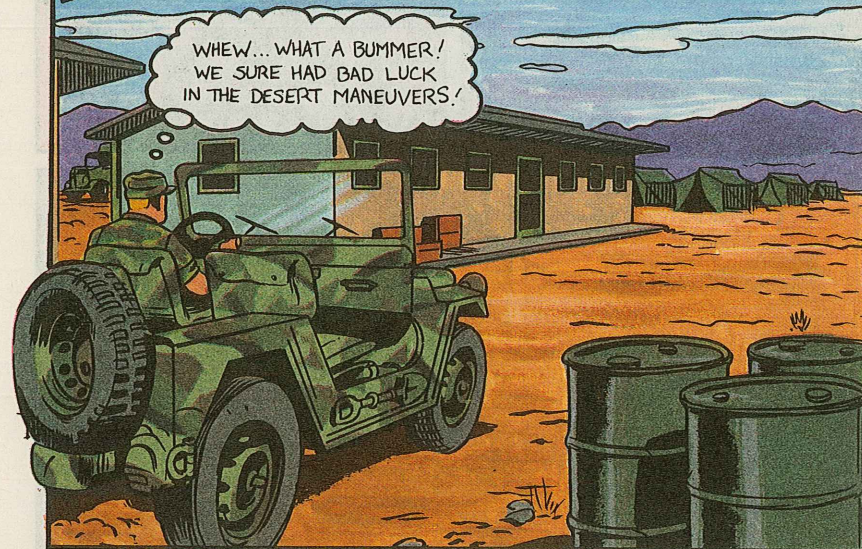
010-071-6660-F Introduction to 4.2 inch mortar
 010-071-6663-F Place a ground mounted 4.2 inch mortar into action, Part II
 010-071-6665-F Bore-sight the 4.2

inch mortar with M45 bore-sight
 010-071-6667-F Store mortar ammunition (ground and track mounted), Part I
 010-071-6669-F Prepare 4.2 inch ammunition for firing, Part I
 010-071-6673-F Place a carrier

mounted 4.2 inch mortar into action
 010-071-6691-F Prepare chart and determine data, 4.2 inch mortar, Part VII
 041-441-5914-F Vulcan armament PMCS, Part IV

We have Met the Enemy and...

They Are Us!

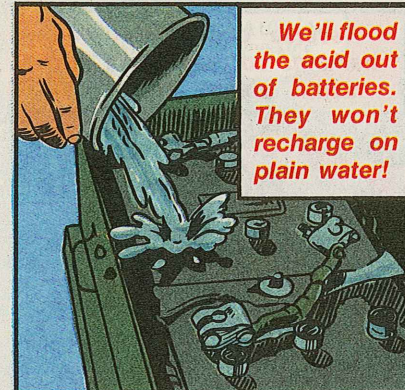
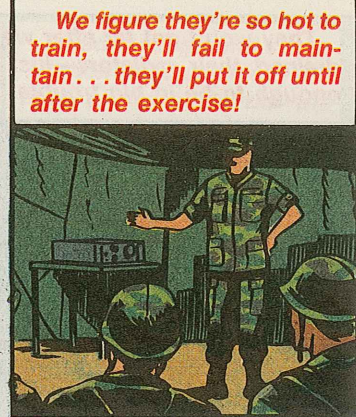


I'LL JUST STOP HERE AND DROWN MY SORROWS!



UH-OH, THAT LOOKS LIKE WILLIAMS...





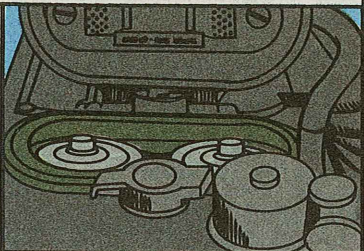
They won't get far after we've drained their radiators—just far enough to be in big trouble!



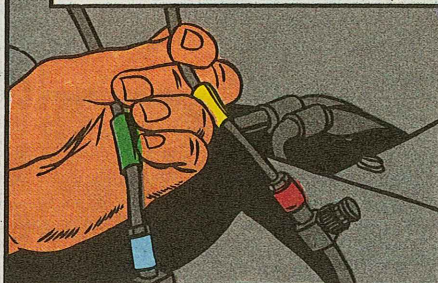
...Close coolant receiver valves on RATT rigs to set up overheating!



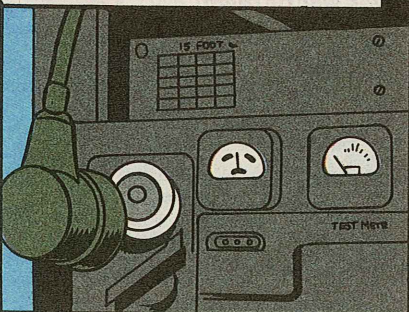
Turn batteries in portable sets the same direction. If they don't have one up and one down, they're dead.



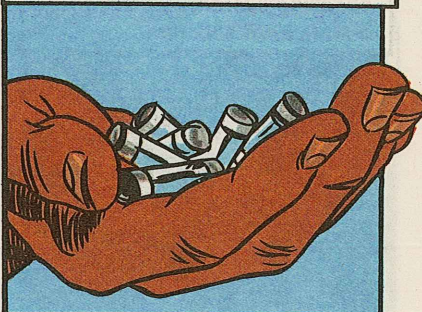
Reverse color-coded cable markings so they won't know which is which!



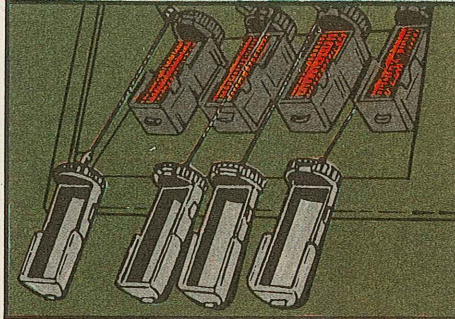
Loosen antenna connections so RF power reflects back.



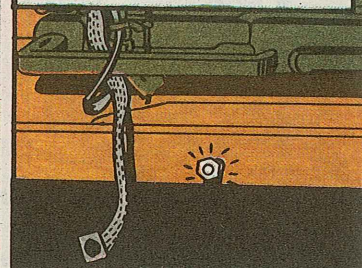
Put in fuses that're rated wrong for the gear!



Take covers off external connectors so the desert dirt can get at 'em.



Disconnect ground straps ... then static electricity will have a chance to zap the gear!



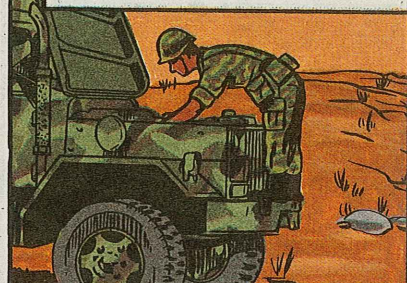
THAT EXPLAINS A LOT! WE DIDN'T HAVE A CHANCE, DID WE?



WAIT A SEC...

NO, YOU WAIT!

From the beginning we had troubles... we couldn't even start some of the vehicles...



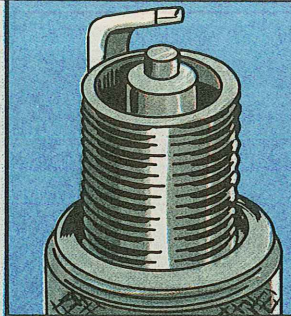
HERE'S THE PROBLEM... LOOSE BATTERY CABLES!



Trailer brakes locked up... until we finally figured out the air hoses were reversed!



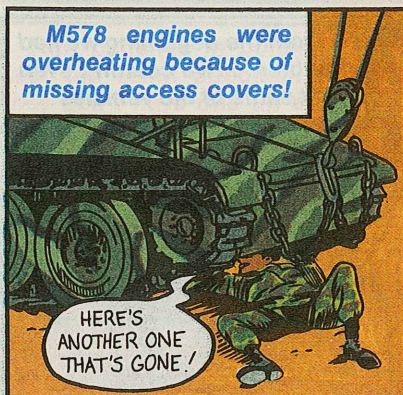
A lot of engine trouble turned out to be caused by overgapped spark plugs!



Our tanks were throwing tracks like horseshoes!



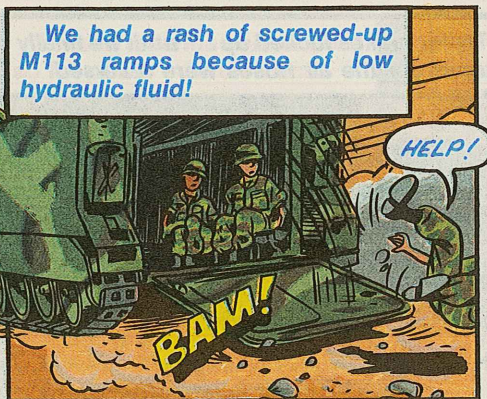
M578 engines were overheating because of missing access covers!



BUT, BUT...



We had a rash of screwed-up M113 ramps because of low hydraulic fluid!



... a few became uncontrollable because the prop shaft bolts were missing.



We were losing wheels to loose lug nuts...



... and then for no reason at all, we started losing communications! Some radios were dead...



... some just plain fell out of their mounts!

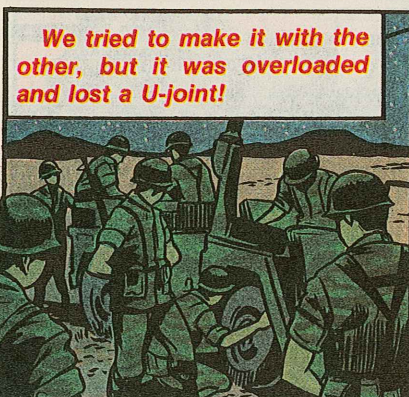
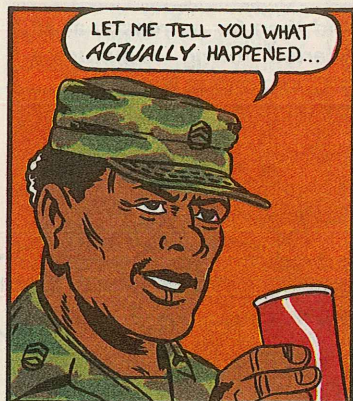


The radios we did have started overheating because the vents were plugged-up!

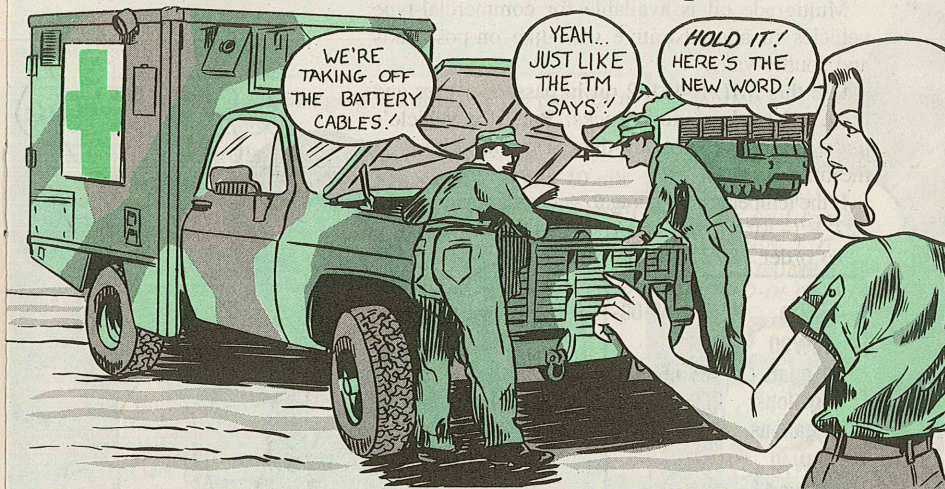


YOU GUYS REALLY DID A NUMBER ON US!





Handle Battery Cables Right!

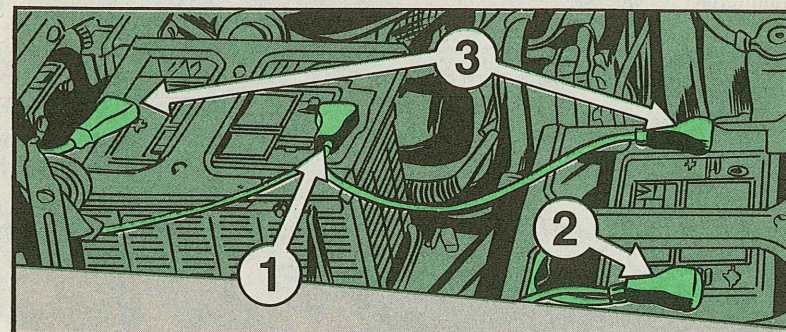


Trouble may be in store for your CUCV—especially the M1010 ambulance—if you take off battery cables in the wrong order. Same goes for hooking up battery cables.

Forget the instructions on Page 8-56 of TM 9-2320-289-20. They can result in damage to electronics in the battery charging system.

Here's the right way:

1. Disconnect the negative (-) cable from the rear battery.
2. Disconnect the negative (-) cable from the front battery.
3. Disconnect the positive (+) cables from both batteries.



Just as important—install cables in the reverse order... positive (+) cables first... then front battery negative (-) cable... and rear battery negative (-) cable last.

Multigrade Oil for Admin Use

Multigrade oil is available for commercial-type vehicles in administrative use—like on-post taxis and shuttle vans.

Use this MIL-L-46152 oil in passenger cars and light and medium duty trucks. But, if a vehicle's under warranty, use only the oil specified by the manufacturer.

If the temperature's going to get colder than -22°F (-30°C), use OEA, MIL-L-46167.

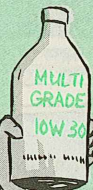
To order MIL-L-46152:

Size	NSN 9150-00-
10W30	
1 quart	186-6699
5 gallons	256-6411
55 gallons	186-6703
15W40	
1 quart	186-6705
5 gallons	186-6706
55 gallons	186-6709

Of course, you never use this multigrade oil in tactical or combat vehicles, material handling or construction equipment. You use MIL-L-2104 multigrade oil for this gear.

THIS OIL ALSO
COMES IN 1 QT.
PLASTIC BOTTLES...
NSN 9150-01-177-2762
FOR 10W30
AND...

...NSN
9150-01-
177-2763
FOR
15W 40
WEIGHT!



Multigrade Oil...

New Lube Saves Time & Money

Seasonal oil changing is a thing of the past for a lot of equipment.

Multigrade 15W40 oil (OE/HDO 15W40) is authorized instead of OE/HDO 10W30 and 40 oils in most cases where the outside temperature will not drop below 5°F (-15°C).

It is not authorized for:

- M1 tank transmission
- Any power steering system
- JD410 Loader Backhoe transmission
- Equipment covered by a manufacturer's warranty specifying other lubricating oils.

OE/HDO 15W40 oil (MIL-L-2104) comes in three different size containers:

Size	NSN 9150-01-152
1 quart	-4117
5 gallons	-4118
55 gallons	-4119

Equipment LO's will be updated to include multigrade oil applications.

THIS OIL FOR ALL
SEASONS NOW COMES
IN A HANDY 1 QT.
PLASTIC CONTAINER, TOO,
NSN 9150-01-178-4725!



CUCV...

Weight Classes

Your CUCV needs a weight classification so you'll know whether you can cross a bridge when you come to it. Here's the info:

E = Empty CC = Cross-Country H = Highway						
		LOADED		EMPTY OR LOADED		
TRUCK	E	CC	H	TRUCK WITH TRAILER	CC	H
M1009	2	3	3	M1009 W/M416	3	3
M1008/M1010/ M1028	3	4	4	M1008/1008A1/1031 W/101A1	5	5
M1031	3	5	5	M1028 W/M101A1	6	6

Mount the sign on the left side of the front bumper. NSN 9905-00-565-6267 for the sign kit is on Page 43 of TB 43-0209.

M1010 Ambulance...

Get Troubleshooting Guide

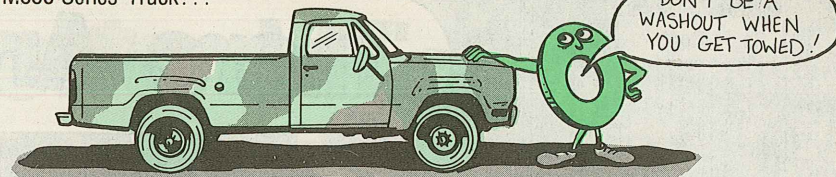
Troubleshooting the Dual Voltage Alternator Control (DUVAC) system can be real tricky, especially if you don't know how the system works or what to look for.

Make things a lot easier for yourself. Get a free copy of "The DUVAC System User's Guide," from the manufacturer. Write to:

Sure Power Products, Inc.
10189 SW Avery St.
Tualatin, OR 97062



M880-Series Truck...

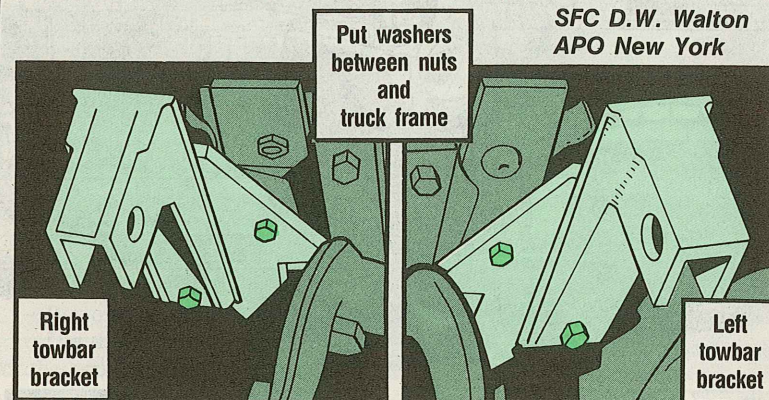


Washers Make Towing Safer

Dear Editor,

Towbar bracket/mounting bolts can pull thru the frame and lead to an accident. To prevent this, put washers, NSN 5310-00-954-2993, between the nut and truck frame.

SFC D.W. Walton
APO New York



(Editor's note—Sounds good! Make sure bolts and nuts are tight—nuts torqued to 30-35 lb-ft—so the bracket won't shift while the truck is being towed. When installing the bracket and adapter, get rid of dirt and mud. Follow the towbar hookup in TM 9-4910-593-12&P.)

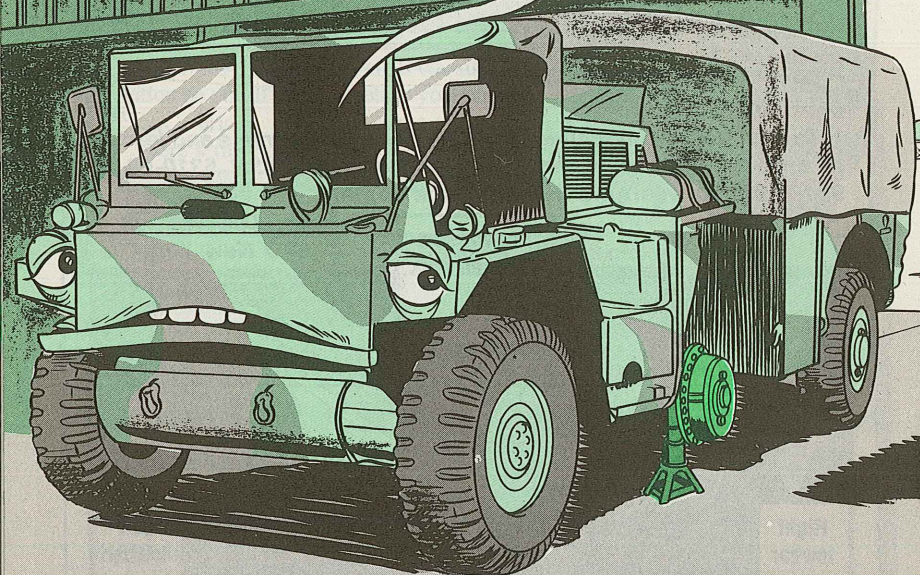
M880 Fusible Link NSN's

That "fusible link" shown in the bottom right corner of Page 2-17, TM 9-2320-266-20, comes under NSN 2920-01-007-0337. Another fusible link—not shown—connects the battery to the hazard warning light. It's NSN 2590-01-050-0297. Figure 29 in TM 9-2320-266-20P and the listing on Page 69 give you a bum steer. Item 13 is not in the picture. Item 14 includes both cables—the smaller one connects to the hazard warning fusible link.

JUL 85

41

There Are Better Ways!

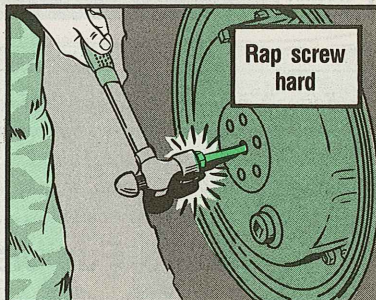


Do you really need to destroy a stubborn brake drum to get it off your Gama Goat? Before you swing a sledgehammer, or light up a cutting torch, try this:

Go by Steps 1, 2 and 3 on Page 12-23 of TM 9-2320-242-20-3-2—but with the tire and wheel still mounted. This weight will help when you:

—Install a 2 1/2-in long screw—NSN 5305-00-719-5240—where you took out the center screw. Turn it into the stub axle until it bottoms out.

—Rap the screw hard—but squarely—with the 3-lb ball peen hammer in your No. 1 Common shop set. Keep it up until the screw head moves in almost to the drum. Turn the screw out a little and hammer some more. Repeat this until the drum's loose enough to pull off.



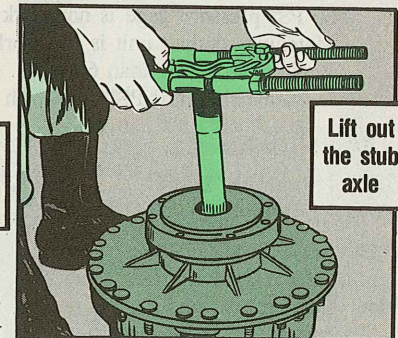
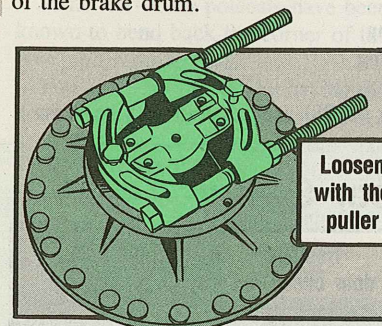
BLUTO, THE
TM METHOD
WON'T WORK!

YEAH, I'LL
POUND THAT
BRAKE DRUM
TO PIECES!



If the screw-and-hammer method won't work, try this:

- Take off the tire and wheel... then go by Steps 1 and 2 in your -20-3-2 TM.
- Remove the whole shootin' match—brake drum thru stub axle—as a unit.
- Use the puller in your No. 1 Common shop set to pull the stub axle out of the brake drum.



—Finish up with Step 3 in your TM.

If neither of these methods work alone, try them both at the same time.

Important! Before you install the brake drum, clean the drum and axle splines with a wire brush. Then lube the splines with GAA. This'll make drum removal easier next time.

60 PSI vs 120 PSI

Pressure peaking at 60 PSI on your multifuel engine's oil pressure gage? Don't panic...yet! Could be the gage and matching sending unit can't handle what the truck's power plant is putting out. If so, switch to a 120 PSI pressure indicator, NSN 6620-00-115-9042, and matching sending unit, NSN 6620-00-993-5546. For some engines, oil pressure up to 75 PSI, and even 110 PSI, is normal.



If pressure is normally below 60 PSI, keep the gage and sending unit you've got. Change 'em only when:

- 60 PSI pressure gage is not working
- Matching sending unit is not working
- Pressure is higher than 60 PSI.

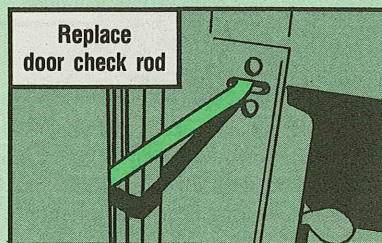
Never mismatch a 120 PSI gage with a 60 PSI sending unit or vice versa.

2 1/2-, 5-Ton Trucks...

Limit the Door Swing

The doors on your M44-, M39- and M809-series truck open so wide they can hit the rearview mirror, smashing door glass, mirror and brace.

To prevent this, replace the door check rod with rod, NSN 2510-01-084-9633. It will stop the doors from swinging too far. This is the same rod used on M939-series 5-ton trucks.



Reflect On Mirror Parts

You can't get complete mirror assemblies for your M39-series, M809-series or M939-series 5-ton truck.

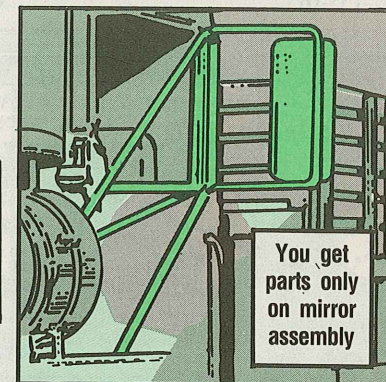
Only repair parts are available, as listed in:

TM 9-2320-211-20P, Fig 200

TM 9-2320-260-20P, Fig 22-9 and 22-10

TM 9-2320-272-20P, Fig 290

NSN's for mirror assemblies are no good.



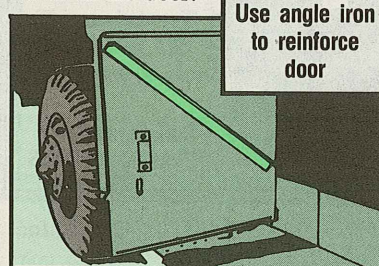
M39-, M809-Series Trucks...

Tough Toolbox

Tired of losing tools from the toolbox on your 5-ton truck?

Some low-down polecats have been known to bend back the corner of the door and remove tools.

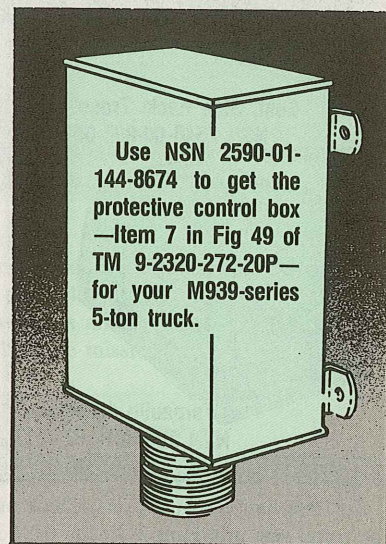
You can head this off by having the door reinforced by welding on a piece of 3/4-in by 3/4-in angle iron—like NSN 9520-00-277-5983—across the inside of the door.



M939 Series...

Control Box

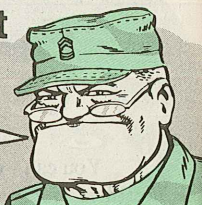
Use NSN 2590-01-144-8674 to get the protective control box—Item 7 in Fig 49 of TM 9-2320-272-20P—for your M939-series 5-ton truck.



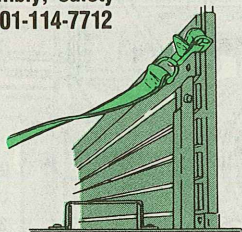
Troop Seat and Tarpaulin Kit

You can get a troop seat and tarpaulin kit for your M929 or M930 5-ton dump trucks with NSN 2540-01-155-0112.

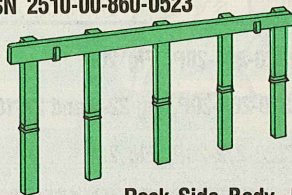
THESE ARE CARGO TRUCK PICTURES IN THE -10 TM, BUT THEY SHOW WHAT YOU GET!



Strap Assembly, Safety
NSN 5340-01-114-7712

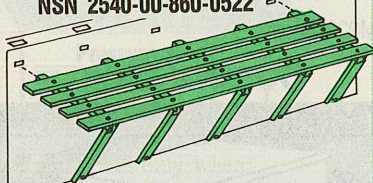


Rack Side Body, L.H.
NSN 2510-00-860-0523



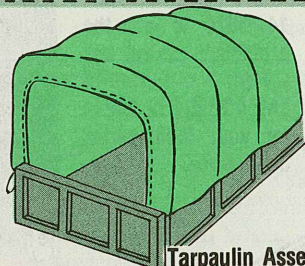
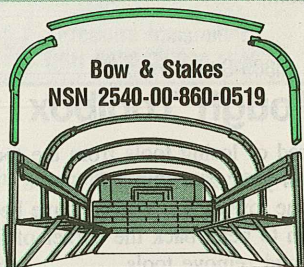
Rack Side Body, R.H.
NSN 2510-00-860-0517

Seat, Side Rack, Troop, L.H.
NSN 2540-00-860-0522

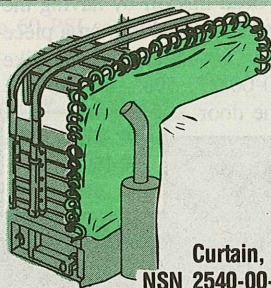


Seat, Side Rack, Troop, R.H.
NSN 2540-00-860-0520

Bow & Stakes
NSN 2540-00-860-0519



Tarpaulin Assembly
NSN 2540-01-182-7557



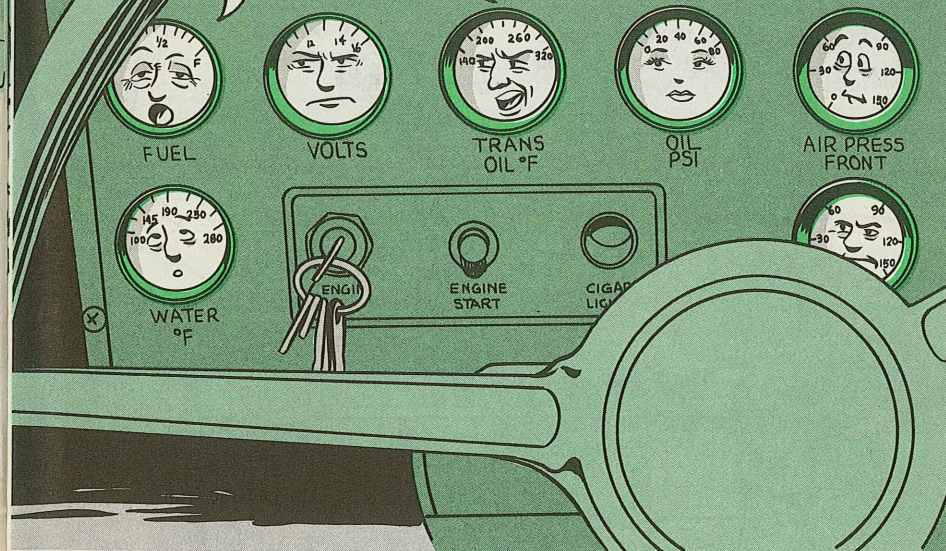
Curtain, End
NSN 2540-00-860-0516

For installation instructions, check out Para 2-28 of TM 9-2320-272-10 for the troop seat and Para 2-29 for the bows and tarp.

Drop Fuel, Add Transmission

SURE GLAD I DON'T HAVE TO WORK TODAY! YAWN!

YOU GET AWAY WITH MURDER! IF WE AREN'T ON THE JOB, THE WHOLE TRUCK IS NMC!



A bum fuel gage does not make your truck NMC.

A faulty transmission oil temperature gage does make your truck NMC.

This switch will be showing up for Item 45 in your Operator PMCS on Page 2-44 of TM 9-2320-273-10. This means all the gages—except the fuel gage—must be working for your vehicle to be mission capable.

M915-Series PTO Knob

Why pay big bucks for a PTO cable assembly, NSN 2590-01-030-9038, including a knob, for M916 thru M920 trucks when you need only the knob? You can get the knob using NSN 5355-01-188-9678.

M977, M985 HEMTTs...

Use Boards to Keep Steady

Soft or sandy soil lets outrigger pads sink while you load or unload your cargo HEMTT. This can cause your truck to roll over when you're lifting an MLRS rocket pod or a pallet of ammo!

So, use a couple of 2×12×24 inch boards under each outrigger pad to spread the weight.

Or use semitrailer ground jack boards, NSN 2510-00-741-7585.

Center the boards before lowering the outriggers. When you're not using the boards, stow them in the cargo bed.

A COUPLE OF
2×12×24 INCH
BOARDS CAN KEEP
YOUR HEMTT FROM
SAYING 'TILT!'



Pack Hub? No!

No matter what some TM's say, you do not "pack hub cavity with GAA" when you're pulling a wheel bearing service on trucks and trailers. You do clean old lube out of the hub. And you do rub a light coat of grease on the inside of the hub—just to keep the metal from rusting. And that's all!

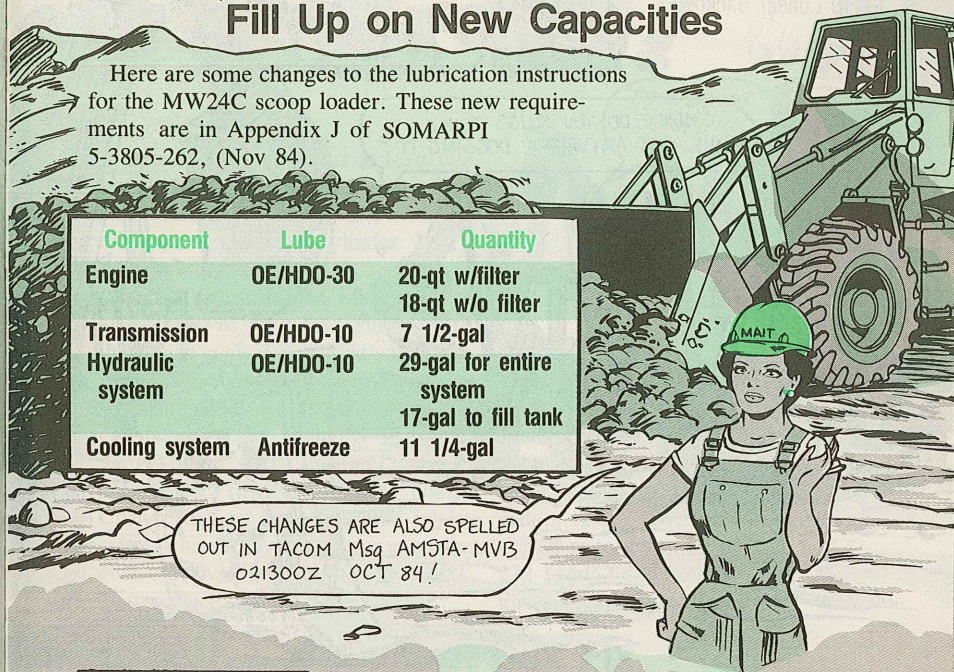
MW24C Scoop Loaders...

Fill Up on New Capacities

Here are some changes to the lubrication instructions for the MW24C scoop loader. These new requirements are in Appendix J of SOMARPI 5-3805-262, (Nov 84).

Component	Lube	Quantity
Engine	OE/HDO-30	20-qt w/filter 18-qt w/o filter
Transmission	OE/HDO-10	7 1/2-gal
Hydraulic system	OE/HDO-10	29-gal for entire system 17-gal to fill tank
Cooling system	Antifreeze	11 1/4-gal

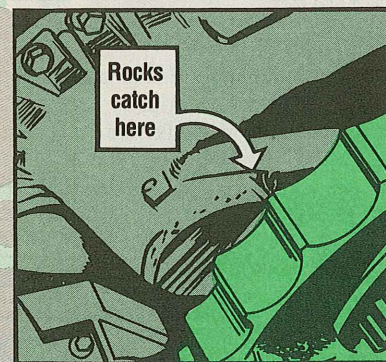
THESE CHANGES ARE ALSO SPELLED
OUT IN TACOM Msg AM5TA-MVB
021300Z OCT 84!



D7E/F Caterpillars...

Rocks in Your Sprockets ✓

A rock caught between the final drive housing and the sprocket on your Cat can wear a hole in the housing quick-like.



You lose oil from the final drive, and you lose the tractor while it's getting fixed.

Check the housings before operations for leaks or anything caught between the housing and sprocket. Check them more often when you are working in rocky soil.

After operations, clean out any mud or rocks packed between the sprocket and housing. If you don't, the mud and rocks can harden into something like concrete.

Circulate the Hydraulic Oil!



Everybody knows exercise is good for you...look what it's done for Arnold Schwarzenegger!

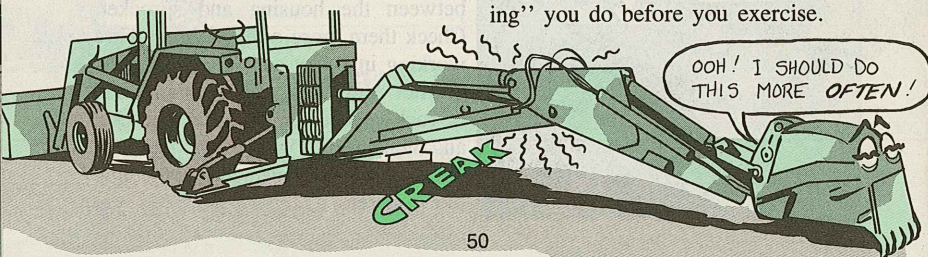
It's equally good for your JD410 loader backhoe. Exercising your tractor doesn't make for a great body, but it heads off hydraulic system corrosion.

Exercise keeps the hydraulic system moving free and lubes the seals. It also gets rid of water that's collected in the oil from condensation.

Water in the oil reacts to form acid. It causes rust, breaks down filter elements and damages control valves, seals and such. You'll get leaks, pressure loss and failure.

Your tractor needs a once-a-month exercise routine when you're not using it regularly.

Start by running the engine at 1,500 RPM until the oil warms to operating temperature. This is like the "stretching" you do before you exercise.

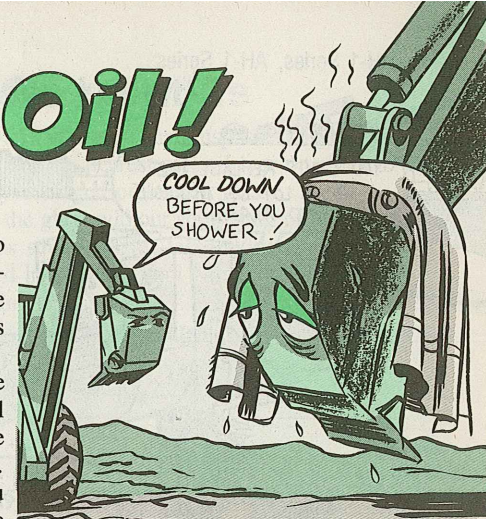


Cool Down!

Operate the tractor for at least two hours. Be sure to operate every control, valve and lever. That'll circulate oil thru every line and cylinder. That's the "exercise."

Before you shut down, idle the engine at 1,500 RPM for a few minutes until the engine cools down. That's the same as the "cool down" exercise you do.

Regular exercise doesn't mean you can forget about changing hydraulic oil or filters, tho. You still need to change the filter every 500 hours. Change the oil and clean the intake screen and the hydraulic pump stroke control valve filter during the 1,000-hour service.

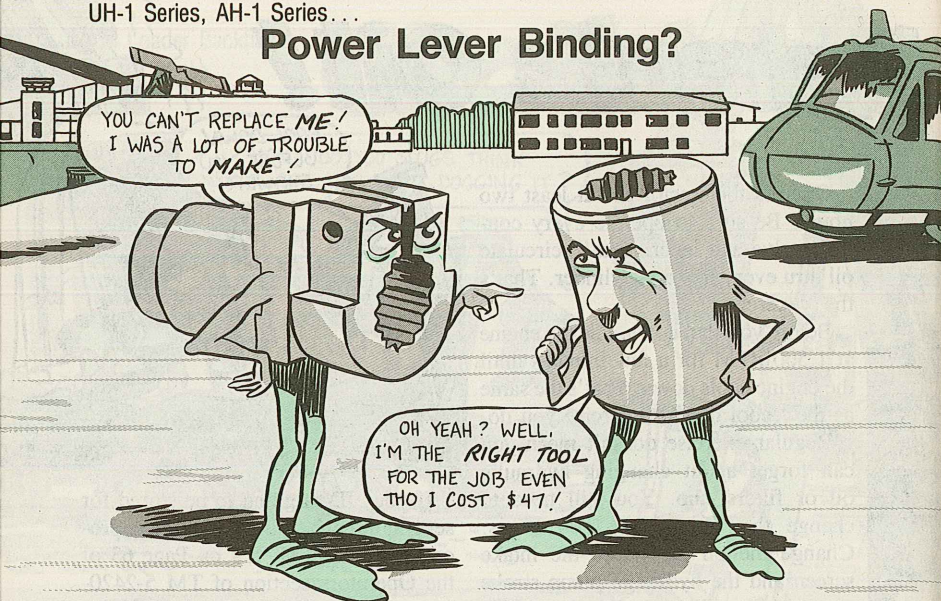


If your JD is going to be stored for several months, follow the storage procedure in the TM. It's on Page 63 of the Operators section of TM 5-2420-222-14&P-1 and Page 50 of the Operators section of the -14&P-2.

Control Box Fix



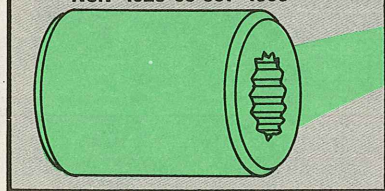
Power Lever Binding?



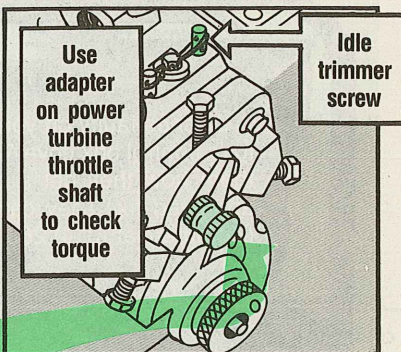
If the power lever is binding on a Huey or Cobra, relieve the tension with 1/8 turn adjustments to the idle trimmer screw as shown in Para 1-117 of TM 55-2840-229-23-1. The procedure is in Para 1-118.

The article titled "Throttle Adjustment Tool" in PS 385, December 1984, is misleading. You don't have to get AVIM to make a special tool for checking the torque on the power lever. Torque wrench adapter, NSN 4920-00-957-4060, will do the job.

Adapter
NSN 4920-00-957-4060



The adapter is used with a standard torque wrench on the power turbine throttle shaft to check torque following each 1/8 counterclockwise adjustment of the idle trimmer screw.



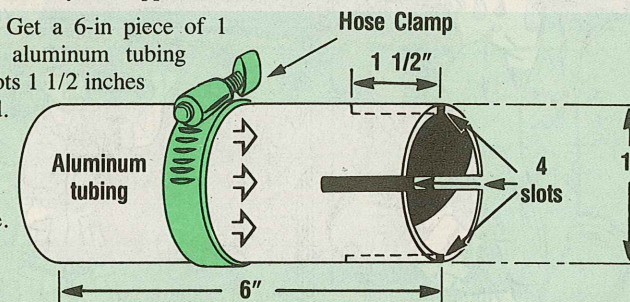
Torque limits are up to 15 lb-in for the 0° to 100° travel and 25 lb-in from 100° to 0° travel (cutoff). Limits of adjustment are reached when cutoff cannot be obtained.

Sight Gage Glass Pullers

Oil sight gage glasses must be removed for cleaning and inspection of internal gear wear patterns. Some mechs grab for the nearest screwdriver or pliers to pry the glass off. The result is usually damaged or broken glass.

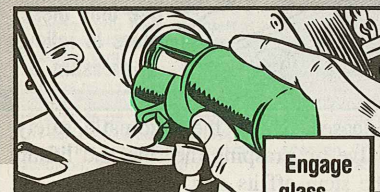
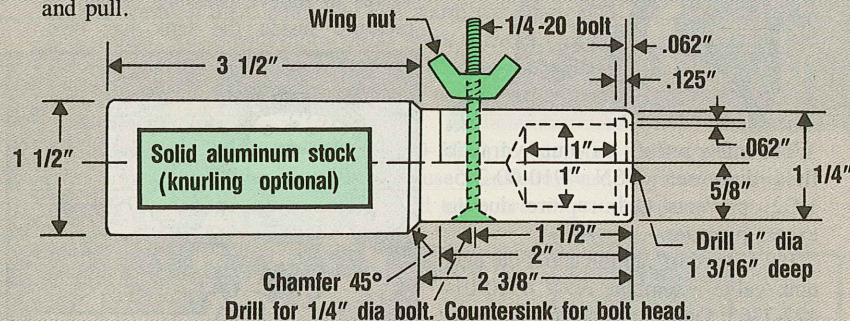
But you can make a tool to remove the glass without scratching or breaking it. Take your choice: Tool No. 1 was submitted by Jesse Witters of Grand Canyon Helicopters, AZ, and appeared in PS 332. Tool No. 2 was submitted by SGT Jerold L. Fry and appeared in PS 363.

Tool No. 1 Get a 6-in piece of 1 inch diameter aluminum tubing and cut four slots 1 1/2 inches deep in one end. Slide a hose clamp over the slotted end of the tube.



To use the tool, remove the lock ring from the sight glass. Slip the tool over the glass and tighten the clamp. A slight pull removes the glass from the gage.

Tool No. 2 Get your AVIM shop to make this tool from solid 1 1/2 inch diameter aluminum stock. Just slip it over the sight glass, tighten the wing nut and pull.



Engage glass...



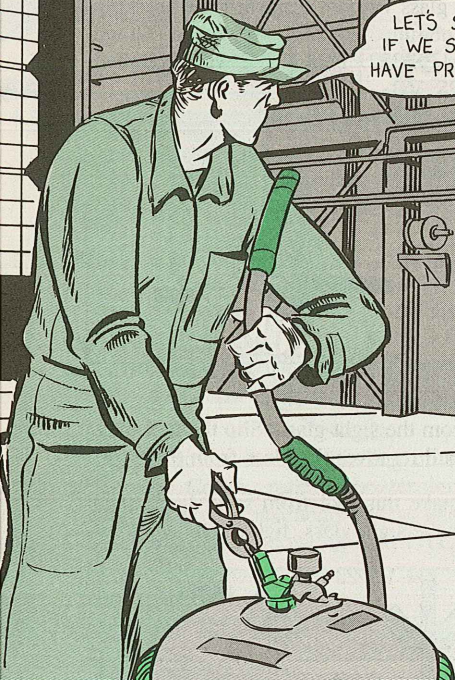
...tighten wing nut

Hydraulic Fluid Dispenser...

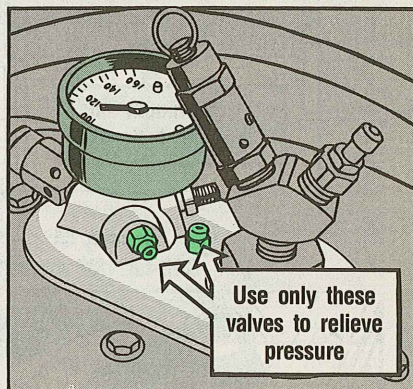
Beware of the Ring

LET'S SEE
IF WE STILL
HAVE PRESSURE!

DON'T PULL
THAT RING,
YOU MIGHT
GET AN
EYEFUL!



Use only the tank and bladder bleed valves to relieve pressure. When *all* pressure inside the tank has been



The safety retrofit on your hydraulic fluid dispenser, NSN 4910-00-245-1832, prevents tank rupture due to excess pressure.

But a word of caution about the new tank valve assembly, NSN 4910-01-127-7365: Don't pull the ring attached to the pressure release valve unless you know the dispenser is empty.

Pulling the ring to release pressure inside the dispenser *before* it is empty could get you an eyeful of hydraulic fluid through one of the four tiny holes in the valve.

released, check the automatic safety valve by grasping the ring and lifting the stem off its seat.



Nomex Neglect Is a No-No

Air crewmen, don't neglect your Nomex clothing—especially the gloves. They suffer more wear and tear than most other Nomex garments simply because they're always where the action is. Dirt, grease, grime, hydraulic fluid—you name it and your gloves get in it. Grease, oil and hydraulic fluid, in particular, will destroy their flame-resistant properties.

Hand-laundry your gloves like it says in TM 10-8400-202-13 by putting them on and washing them with soap and warm water just as if you were washing your hands. Rinse with more warm water, then remove them and *squeeze* the water out. Don't wring or twist 'em. Machine washing is OK, too.

Drip-dry 'em or toss 'em in the dryer with other garments. Then stretch them back into shape.

Use saddle soap, NSN 7930-00-170-5467, to keep the leather palms from getting hard, crusty or brittle. **Never** use petroleum base lubricant on them!

Take care of your gloves and they'll take care of your hands.

Aviation Messages

Cat 1 EIR Phone:
AUTOVON 693-2066
(24 hours)

If your unit has not received a message you have an interest in, check with your next higher headquarters.

UH-60A-85-04, Revisions to SOF
UH-60A-85-03, Date-Time Group
200028Z Feb 85, 011900Z Mar 85.
UH-60A-85-05, SOF Operational,
UH-60A Prohibit training and oper-
ation of the engine "ECU" lockout
condition, 211530Z Mar 85.

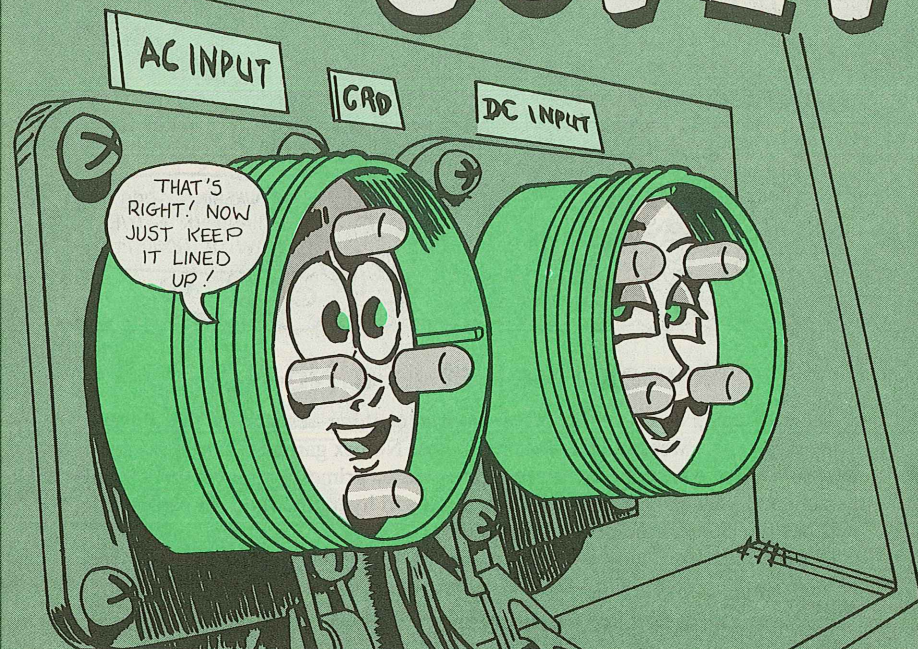
UH-1-85-02, SOF Technical, Mag-
netic particle inspection of UH-1
turnbuckles, NSN 5340-00-865-
7927, 011330Z Mar 85.

AH-1-85-02, SOF Technical,
AH-1, TAH-1 and TH-1, Revision
to recurring and one-time inspec-
tions of washplate bearing, lubri-
cation and interval of bearing in-
spection, 071230Z Mar 85.
MIM-GEN-85-MEM-01, SOF Com-

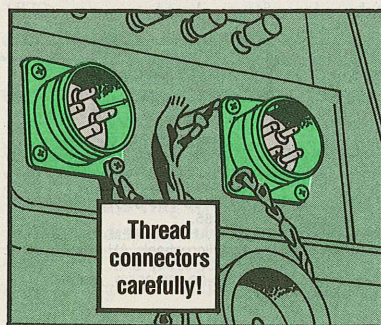
pliance, 051600Z Mar 85.
MIM-UH-1-85-MEM-01, Ground
handling wheels, AH-1 (NSN 1730-
01-133-9204) and UH-1 (NSN
1730-00-980-9552), 291800Z
Mar 85.

MIM-AH-1-85-MEM-01, Ground
handling wheels, AH-1 (NSN 1730-
01-133-9204) and UH-1 (NSN
1730-00-980-9552), 291800Z.

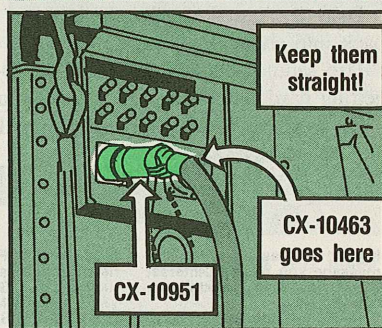
Get It



Your RATT power cable is heavy ...and that can make a real chore out of connecting it to your AN/GRC-142 or -122 radio teletypewriter set.



56

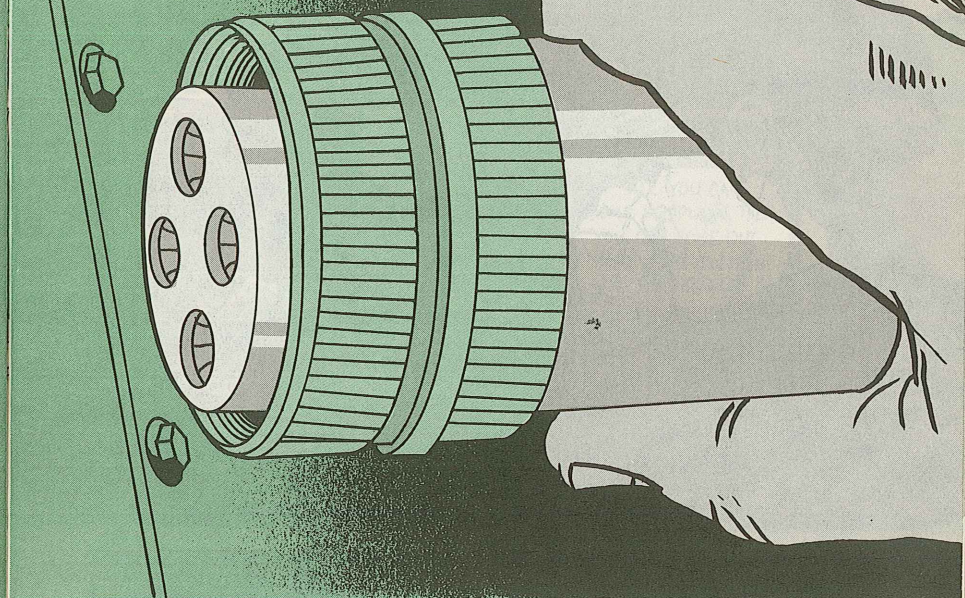


But get it right. If it starts crooked, you'll strip the threads.

Before you start threading the connector, put a dab of silicone, NSN 6850-00-

JUL 85

Straight!



880-7616 or CLP, NSN 9150-01-079-6124, on the receptacle threads. That will smooth the connection and keep the threads from "freezing" together if the cable stays on a long time.

Get a buddy to help you get the connector started. Use short smooth turns until it catches. Feel resistance? The connector's probably on crooked.

To take strain off the connector, use the cable grip, NSN 5120-01-123-9295, from TM 11-5815-334-20P, at all times. That gives your cable some relief.

If you can, remove the connector daily during long field problems. If it sticks, wiggle it a little. Go easy.

JUL 85

A broken connector is worse than a frozen one.

When you're through with the receptacle for a while, put on the protective cap. That'll keep rust from the threads.

Remember, the CX-10463 cable assembly from your vehicle goes to the shelter's DC receptacle. The CX-10951 from the generator goes to the AC receptacle.

You can't switch them easily—they're keyed differently. But with a broken key it would be possible to put the right cable on the wrong receptacle. If you fired up your RATT rig then, you could blow some gear for sure.

57

Commo Shelter ...

Let in a Little Air!



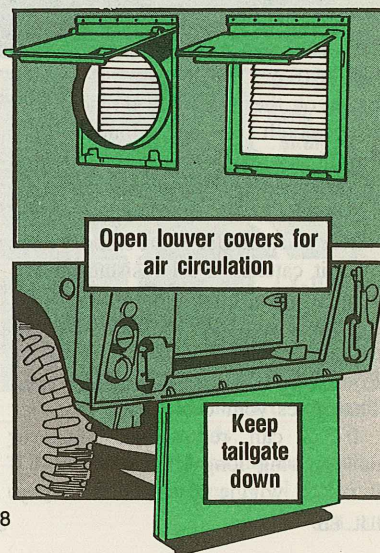
Before you lock up your shelter and leave it until the next operation, give it some air.

Sealed up, the rig is airtight. Condensation forming from temperature changes can do as much damage to your gear as a shower from a water hose.

If you're parking the shelter inside, keep the door, floor drain and louver covers open.

Parking outside? Leave the louvers open but close the door and drain. Open the shelter door daily, too, to get rid of moist air.

Keep vehicle tailgates down. That stops water from accumulating inside cargo areas—and maybe inside your shelter.



58

MX-6707 ...

You Can Switch!



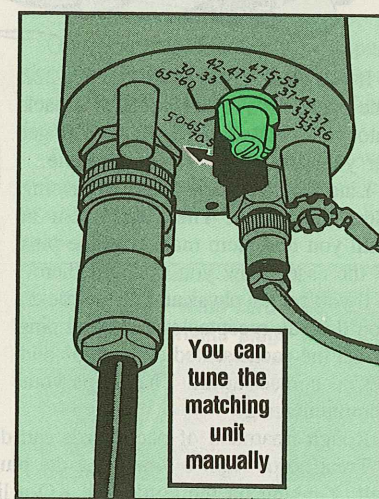
Without a perfect match between radio and antenna you'll get reflected power. That can burn up your receiver-transmitter.

If your AN/VRC-12-series radio won't automatically switch its MX-6707 matching unit to the right frequency, do it yourself.

Look for the S1 switch at the base of the MX-6707. Locate the range for the frequency you're using and turn the switch clockwise to that range. Just follow the arrow on the unit. That should put you back in business—for now.

Once your mission is over, tho, call your repairman to troubleshoot your radio system.

JUL 85



59

Pack In PM

I SURE HOPE THIS SERGEANT DOESN'T GET TOO PHYSICAL WITH US!

LINE UP STRAIGHT!...
TO THE REAR...
HALF-TIME... MARCH!

If you slam, jam or ram the TA-222 line packs or TA-221 operator's pack into your switchboard, all you'll get for your trouble is... more trouble.

Line up the packs before pushing them into place. Then ease them in until you feel them mate with the pins in the case. Now you can seat them.

If you get too physical with the packs, you'll break receptacles and bend pins or get the packs seated at an angle and get no contact at all. That stops your communicating.

Rough treatment of pack cords can do in your switchboard, too.

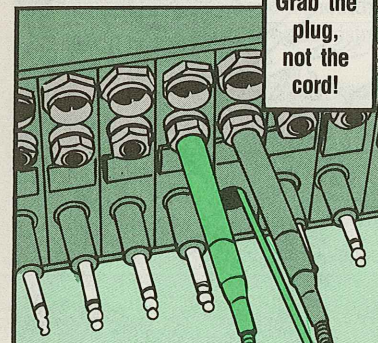
Treat cords right by handling the plug when you connect and disconnect a call. Yanking on the cords will KO a line pack.

Go easy on line pack receptacles



When the call is over, grab the plug and let it slide back into the pack. If you let it fly, it can bounce off (and break) a cateye.

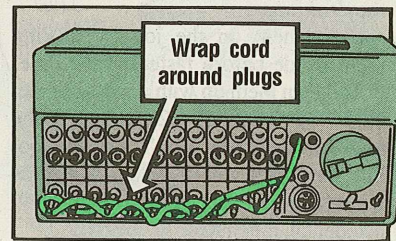
Grab the plug, not the cord!



On the other hand, don't try to push the operator pack's cord back inside its case. There's no room for it. It'll just bend and break inside wiring.

To keep the cord out of the way when you're packing up your switchboard, wrap it neatly around the line pack plugs.

Wrap cord around plugs

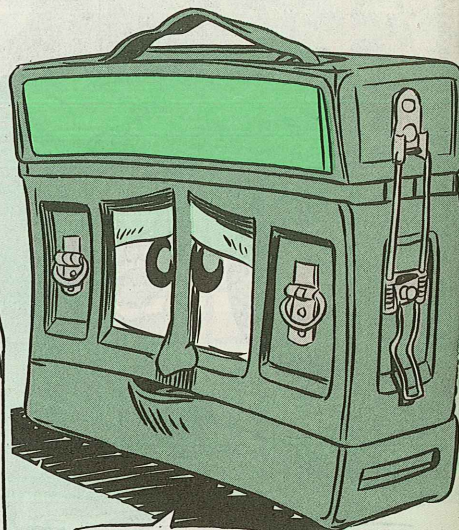


Yellow? Green? Or In-between?

Dear Macon,
Settle a dispute between my repairmen and inspectors. What color is the SB-22 circuit diagram supposed to be—yellow or green?
CW4 R.P.H.

Dear Mr. R.P.H.,
Happy to referee this one, Sir, because the bout's a draw. Old diagrams are yellow and nothing authorizes their change. New switchboard cases have green diagrams, and they should stay that way. The future looks green, but for now both are OK.

Macon



IT DOESN'T MAKE ANY DIFFERENCE!

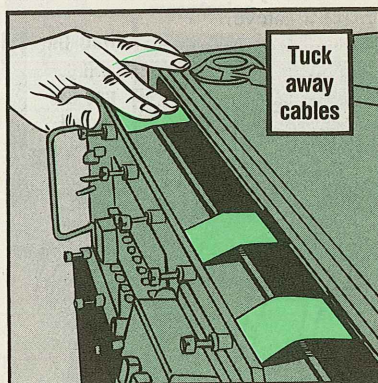
Tuck 'n' Tape Cables

The flexible cable assemblies that hold your switchboard's front panel will fold and unfold for ages with no sweat.

If they get pinched between the panel and case a few times, tho, they're goners.

Keep them on the job by tucking them inside before fastening the case.

Toughen them up with a wrap of tape, NSN 5970-00-419-4291, too. The tape's in your org shop's TK-101 tool kit. The cables will fit inside the switchboard and be better able to head off an accidental pinch.



Dot's the Place to Lift



You can save a lot of wear 'n' tear on your AN/PVS-5 night vision goggles just by lifting at the dot when you remove the V-strap.

The white dot on your strap's button is the only place the button releases on its own.

If you lift too hard anywhere else, you can tear the strap or break the goggle case. The snap won't release.

If your dot is gone, see support about a paint job. In the meantime, you'll have to "feel" for the release.

Add AN/VVS-2 Check

The commo headshed wants you to add this step to the troubleshooting table on Page 3-2 of your night vision viewer's TM 11-5855-249-10:

- Green glow in viewing lens, but unable to focus (produce a clear image) on an object that is 50 feet distant.

- Check that the viewer entrance window is clear.

- Report condition to supervisor to have Direct Support adjust the focus.

The next update to the TM will include this info.



CONNIE, WHO
WON THE
MANEUVERS?

YOU BOTH LOST,
NEXT TIME
YOU'LL DO YOUR
PM!

"Inert" Grenade Goes Off

The M781 practice round used with M203 and M79 grenade launchers is no dummy. If you aim it at a target and pull the trigger, it goes off... and propels a round.

So, if you've got the new revisions of TM 9-1010-205-10 (Feb 85) and TM 9-1010-221-10 (Dec 84), make a mental revision on the M781 in Section II, Chapter 4 of each TM. Where it says "completely inert and contains no fuse," think "inert projectile." It does have a propelling charge.

EIR Digest TB's

When you're updating your pubs account, take note: all the EIR Digest TB's are now listed on one form, DA Form 12-34C-R. The form's in DA Cir 310-85-1. Be sure to get on distribution for the EIR Digests that cover your unit's gear. Those digests are filled with good info on keeping your gear FMC.

M151-Series Strap NSN

Use NSN 5340-00-869-3070 for Item 6 or 7 of Fig 91 in TM 9-2320-218-20P. This brings a strap that will hold either a shovel or an axe to the side of your 1/4-ton truck.

Fire Extinguisher NSN

Get the Halon 1211, 150-lb wheeled fire extinguishers with NSN 4210-01-044-1429. Para 7-11 of AR 420-90, Fire Protection, says you need one extinguisher for every three helicopters or equivalent-sized aircraft assigned to your unit.

M113-Series FOV Starter Fix

Moisture is zapping starters on M113-series vehicles. Pages 3-4 thru 3-7 of TB 43-0001-39-2 (Jul 84) have details on how your DS unit can drill two holes at the low point of the flywheel and one hole in the starter drive housing. Once the holes are drilled, any water getting into the flywheel or starter will drain out instead of causing damage. DS can do the work the next time the powerpack is out of the vehicle for scheduled service or some other reason.

SMART Msg No. 50 has the word.

New Look Filter Element

If you get a new engine air cleaner element—NSN 2940-00-804-7898—for your 2 1/2-ton truck that doesn't look like the old element, don't sweat it. It's a new type that does the job as good as the older type.

Altimeter Warranties

If your bird's altimeter goes on the blink, the first thing you need to do is find out if it's still covered by warranty.

AVSCOM Supply Letter A20-84 (4 Oct 84) lists altimeters that have warranties. If your altimeter is on that list and is still under warranty, let your AVIM know. They'll fill out DA Form 2407 like it says in Para 10-18 of DA Pam 38-750 and send it to:

**Commander
USA VSCOM
ATTN: AMSAV-OVG
4300 Goodfellow Blvd.
St. Louis, MO 73120-1798**

The headshed will let them know where to send the altimeter for repair.

Safety Strap NSN

NSN 5340-01-114-7712 gets a safety strap long enough for your 2 1/2- or 5-ton cargo truck. This replaces NSN 5340-00-536-0186 shown in Fig 166, Item 5, TM 9-2320-209-20P, and NSN 5340-00-594-8032 shown in Fig 284, Item 1, TM 9-2320-272-20P. These straps are too short.

M151-Series Throttle Clip

Use NSN 5340-00-776-6646 to get the throttle control rod clip for 1/4-ton trucks. The NSN in Fig 23 of TM 9-2320-218-20P is wrong.

CUCV Relay NSN

Get the glow plug relay, Item 5, Fig 39 of TM 9-2320-289-20P, with NSN 5945-01-192-8653.

DOD Maintenance Awards

Congratulations to these winners of the 1984 Secretary of Defense Maintenance Awards:

SMALL (LIGHT) UNIT WINNERS

*46th Trans Co, Camp Carroll, Korea (USAEIGHT)
26th Comp Rep Sqdn, USAF, Zweibrucken AB, Germany (USAFE)

INTERMEDIATE UNIT WINNERS

*Btry C, 1/22nd FA, Zirndorf, Germany (USAREUR)
363rd Acft Generation Sqdn, TAC, USAF, Shaw AFB, SC

LARGE (HEAVY) UNIT WINNERS

USS JOHN F. KENNEDY, CV 67, US Navy
23rd Tactical Fighter Wing, TAC, USAF, England AFB, LA

*Among winners of the Third Annual Chief of Staff, Army, Maintenance Excellence Award.



NEXT TIME,
I'LL CHECK THE
FAN BELT!

MISS 1985
FIRECRACKER
MARY LOU M...