

Issue 574

PS

September
2000

THE PREVENTIVE MAINTENANCE MONTHLY

TB 43-PS-574

Approved for
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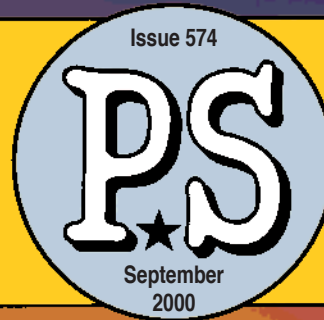


The Treasure of Sierra Padre
... See Page 27



**Increase tire life and
save money, too!
Check tire pressure regularly...
and don't forget the spare!**

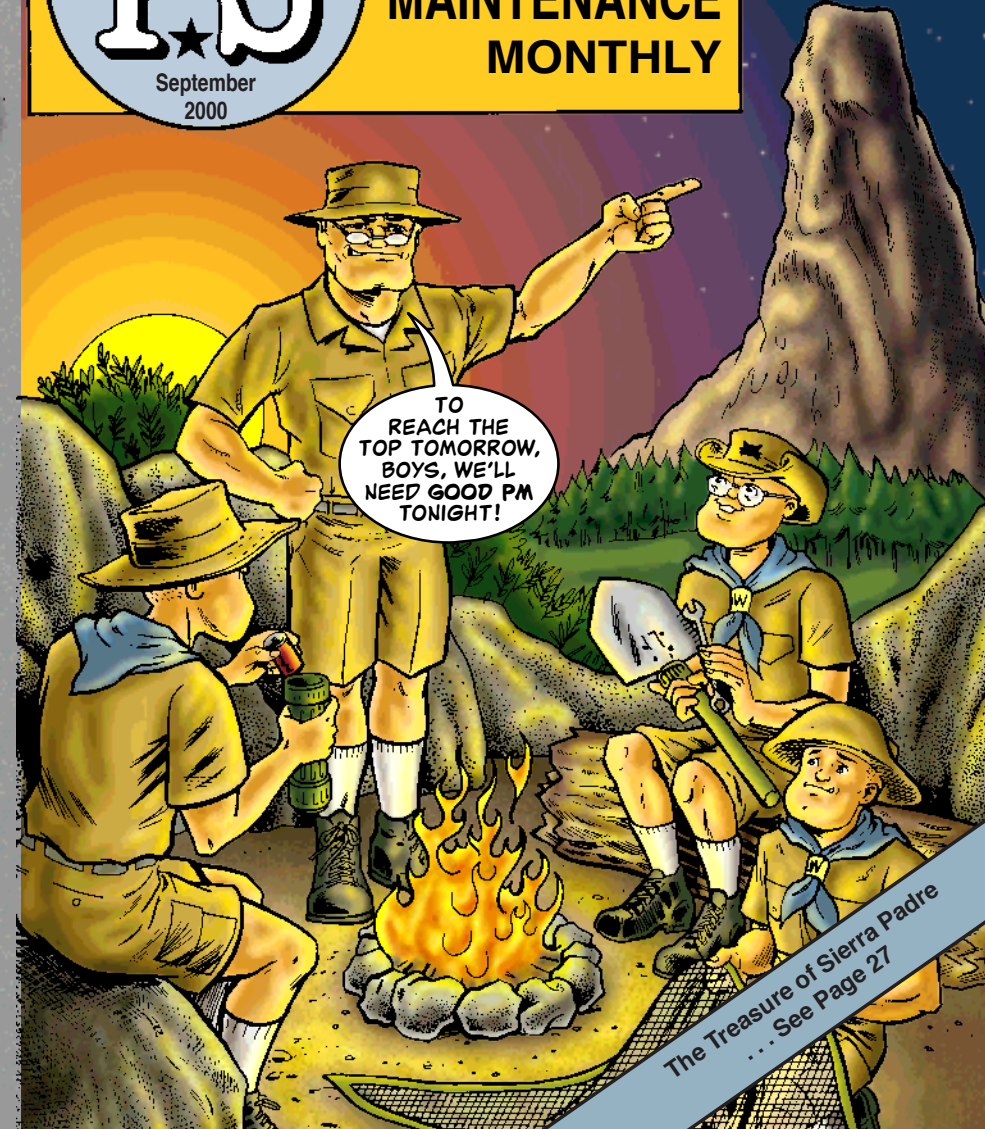
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TO
REACH THE
TOP TOMORROW,
BOYS, WE'LL
NEED GOOD PM
TONIGHT!

The Treasure of Sierra Padre
... See Page 27



**THE
PREVENTIVE
MAINTENANCE
MONTHLY**

TB 43-PS-574, The Preventive Maintenance Monthly, is an official publication of the Department of the Army, providing information for all soldiers assigned to combat and combat support units and all soldiers with unit maintenance and supply duties. All information published has been reviewed and approved by the agency responsible for the equipment, publication or policy discussed. Application of the information is optional with the user. Masculine pronouns may refer to both genders.

ISSUE 574 SEPTEMBER 2000



WHEELED VEHICLES

2

FMTV Footholds, Floor Drain Plugs	2-3
FMTV Driveshaft Bolts	4
HMMWV Radiator Repair, Control Arms	5
M939/A1/A2-Series Truck Throttles	6
Lead-Acid Battery Tester	7
PLS Transmission, Alternator Voltage Peaks	8
HEMTT Tanker V5 Valve	9
Tire Cage Anchoring	10
Wheel Lift Parts	11
Tire POCs	11
M939-Series Truck Bias Tires Available	11



COMBAT VEHICLES

12

M88A1 Recovery Vehicle Final Drive Cover	12
M88A1 Recovery Vehicle Large Tarp	13
M88A2 Recovery Vehicle Oil Level Check	14-15
M88A2 Recovery Vehicle Boom Cables	16
M578 Recovery Vehicle Air Inlet Hoses	16
M2/M3-Series Bradley Coolant Hose Routing	17
M113-Series FOV Periscope Power Cable	18-19
M113-Series FOV Fan Gearbox Lube	19
M109A6 Paladin Track Inspection Criteria	20
M992A2 Ammo Carrier Track Inspection	20
M109A6 Paladin Micro-climatic System	21
M992A2 Ammo Carrier M42 Mounting	21



COMBAT ENGINEERING

22

SEE Hydraulic Oil Cooler Fins	22
DEUCE Winch Warning	22
D7G Tractor Track Adjuster	23
D7G Tractor Sprocket Bearing Lube	24
D7G Tractor Winch Sight Glass Cleaning	24
D7G Tractor Fan Pulley Lubing	25
CB-534B Roller Shift Lever Boot	25
130G Grader Turbocharger Coupling	26

EDITORIAL	1
CONTINUITY	27



AVIATION

35

AGPU Hydraulic Vent Desiccant	35
Aircraft Tiedown Manual	36
OH-58D XM296 Gun Buffer Oil	37
UH-60 Quill Seal Tool	38-39



MISSILES

40

TOW 2 Missile MGS Adapter	40-41
Avenger Range Finder Lens Cover	41
Hellfire Connectors, Rails, Switches	42-44



SMALL ARMS

45

M16, M4 Cleaning, Stuck Rounds	45-46
Mortar Plotting Boards	47
M2, M3, M296 Machine Gun Gauges	47
M2 Machine Gun Charging Cable	48



NBC

49

DS2 Handling, Storage	49
M40/M42-Series Decon Kits for Masks	49



COMMUNICATIONS

50

AN/PSN-11 PLGR Parts	50-51
MSE Shelter PMCS	52-53
Electrical Tiedown Straps	53
MSE Cables	54-55
PP-8479/ASM(V)1 Power Distribution Box	55



LOGISTICS MANAGEMENT

56

Condemned Items	56
Automatic Disposal List	57
SMART Awards	58-59

CONNIE'S POST SCRIPTS

61

You are invited to send PS your ideas for improving maintenance procedures, questions on maintenance and supply problems, and questions or comments on material published in PS. Just write to: □

MSG Half-Mast
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LOGSA, Bldg. 5307
Redstone Arsenal, AL 35898-7466

Or E-mail to:
psmag@logsa.army.mil

Internet Address:
http://www.logsa.army.mil/psmag/pshome.html

By Order of the Secretary of the Army:

ERIC K. SHINSEKI

General, United States Army Chief of Staff

Official:

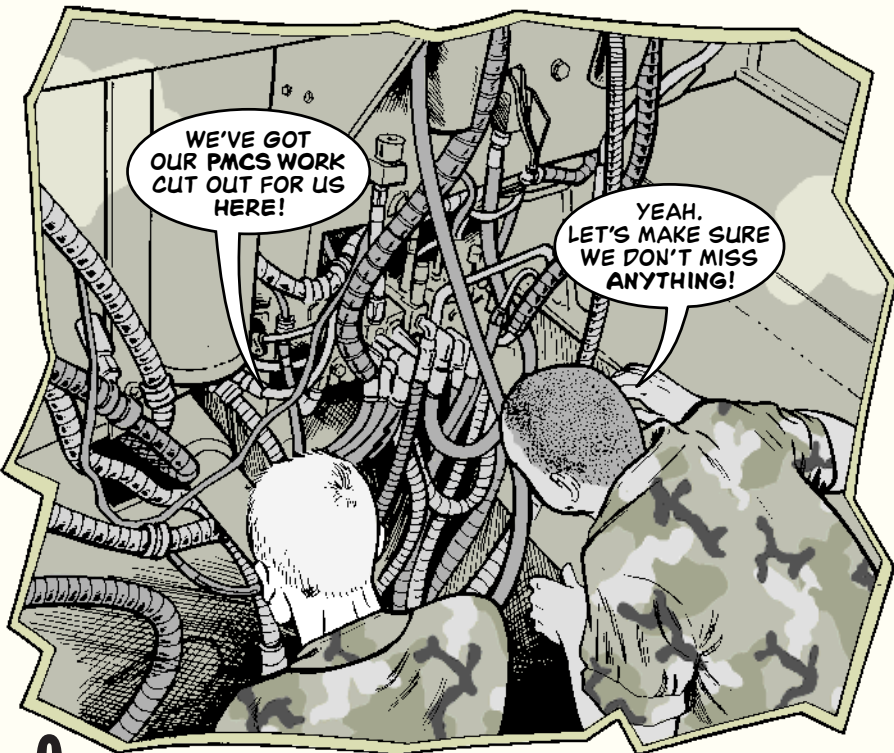
Joel B. Hudson
JOEL B. HUDSON

Administrative Assistant to the Secretary of the Army
0019210

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Readiness from the Bottom Up



WE'VE GOT OUR PMCS WORK CUT OUT FOR US HERE!

YEAH. LET'S MAKE SURE WE DON'T MISS ANYTHING!

Operators, some things in the Army flow from the top down—where you and your unit's equipment will be sent when the balloon goes up, for instance. But other things, like how ready that equipment is to do its job, rise from the bottom up.

The person best suited to determine what state your unit's equipment is in is the person closest to the equipment...you.

Think about that the next time you pull PMCS.

Correct what you can, report what you can't. Don't fudge. If it's not ready, say so.

What you see during your PMCS and what you write on the inspection worksheet is what your commander will eventually use to determine its readiness.

It's a big part of what the "top" uses to decide which units are ready for important assignments.

Make sure your report tells it like it is today, not like it should be, or how it was last week, or how it will be next week.



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Step Lightly

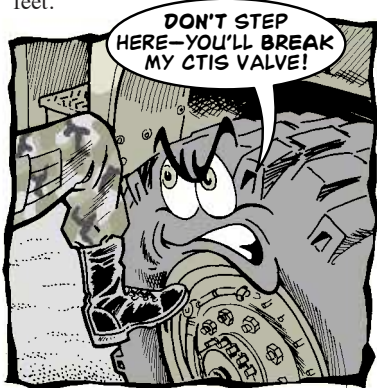
Any driver or operator who has to crawl on, around or in a vehicle knows how easy it is to put a boot on the most convenient foothold.

But that convenient foothold can cause unnecessary repair bills or breakdowns on down the road.

FMTVs in general, and the M1088 5-ton tractor in particular, have some footholds to avoid.

All Models

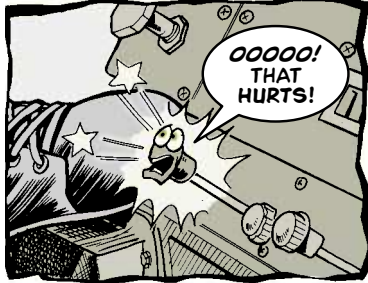
The air inflation extension valves on all wheels have no guard to protect them from their greatest enemy—your feet.



If you use the wheel as a step to climb up or down from the truck, you can break the valve. That means no more automatic inflation.

So get a mechanic to stencil NO STEP just above the valve. The stencils are part of the No. 1 and No. 2 Common shop sets.

The heater, vent and defroster push/pull knobs on an FMTV's dashboard are also easy targets for a boot's bump or kick.



With the knobs pulled out, it's easy to bump into them while moving in and out of the cab. Some passengers have even been known to rest their



boots on the top of the dash to warm their feet in cold weather.

A busted or bent knob stem won't do you much good. So keep your boots on the floor where they belong.

and Carefully



M1088 Tractor

When you're ready to step down from the M1088's catwalk, stay clear of the battery box—you know, where you see the NO STEP stencil.

Your weight will crack the fiberglass cover. Then water seeps through and can short out the batteries.



The floodlights mounted behind the cab often get bumped or stepped on. Your weight will break the light's mounting brackets. That snaps the wires inside the bracket. The end result is no floodlights.



Don't Lose Drain Plugs

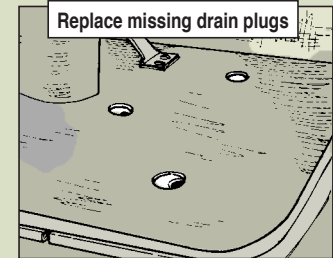
If you remove the floorboard drain plugs from the cab of your FMTV when you go to the wash rack, be sure to replace them when everything dries.

Otherwise, you and your passengers will get to share in the outside elements, even with the windows rolled up.

Those open drain holes will let in dirt, dust, moisture and cold air. That won't make for a comfortable trip anywhere you go.

By the way, you know better than to use a water hose in the cab, right? Restrict cab cleaning to a brush and pail—and replace those drain plugs.

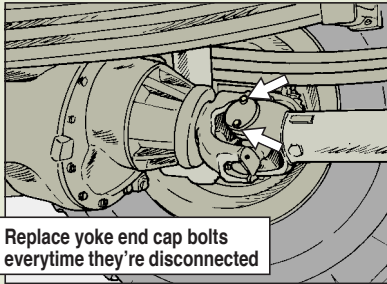
Lost the floorboard plugs? Replace them with NSN 5340-01-384-0869.



Use New Driveshaft Bolts

Every time you disconnect an FMTV's driveshaft—like when you service its transmission oil filters—you must replace the yoke end cap bolts.

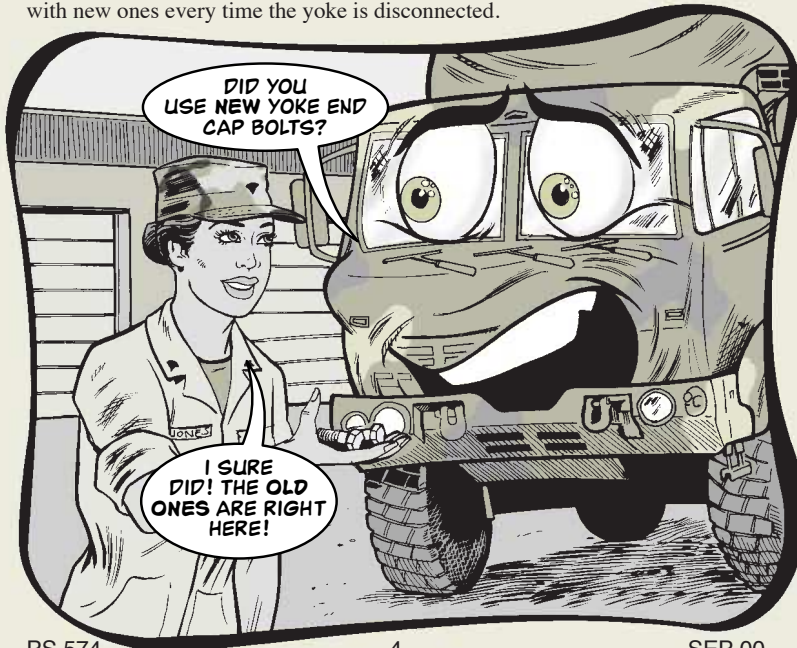
They cannot be re-used because they will not hold tight. The yoke cap will come off and the U-joint could come apart.



Replace yoke end cap bolts everytime they're disconnected

To get the bolts, use NSN 5305-01-472-3766. The NSN is not found in either FMTV TM. If you have any 2 1/2-ton models, make a note for Items 4 and 7 in Fig 128 of TM 9-2320-365-24P. If you have any 5-ton models, make a note for Item 4 in Fig 153 and Items 4 and 11 in Fig 154 of TM 9-2320-366-24P-1.

Also make a note in your maintenance TMs that the bolts must be replaced with new ones every time the yoke is disconnected.



Radiator Repair Info

GOOD NEWS for you HMMVV owners who need repair information for the side channels that attach to the radiator core.

The info is available on Pages 9-18 through 9-24 in TB 43-0001-62-3 (Oct 99). Without the info, you'll replace a lot of radiators that could be repaired at unit level and put back to work.

Materials and procedures are listed in the TB, also known as the *EIR Digest for Tank-automotive, Armament and Chemical Equipment*.

Don't have a copy of the TB? See your local TACOM logistics assistance representative. No luck there? Let Half-Mast know and he'll send you a copy of the facts.

You can also see the TB on the Army Electronics Product Support web site at:

<http://aepe2.ria.army.mil>

Click on Maint., then EIR Digest.



End Control Arm Confusion

Owners of M998A2-series HMMVVs and those with M1113 and M1114 models, take note:

Your parts manuals provide wrong information about which lower control arm is used where on the trucks. Here's the straight info, which you should note until the TMs are updated:

TM 9-2320-280-24P-1 (Jan 96), for M998A2-series models, Fig 121, Item 20—Part number (PN) RCSK-17250 is the left-hand (LH) front lower control arm. PN RCSK-17249 is the right-hand (RH) front lower control arm.

Fig 127, Item 20—PN RCSK-17249 is the LH rear lower control arm. PN RCSK-17250 is the RH rear lower control arm.

TM 9-2320-387-24P (Sep 98), for M1113 and M1114 models, Fig 120, Item 19—PN RCSK-17249 is the LH rear lower control arm. PN RCSK-17250 is the RH rear lower control arm.

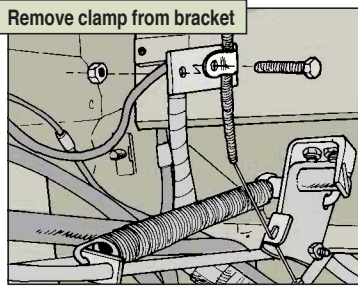
Quick Fix for Stuck Throttles

Mechanics, a throttle that sticks open can ruin a driver's day—or his *life*.

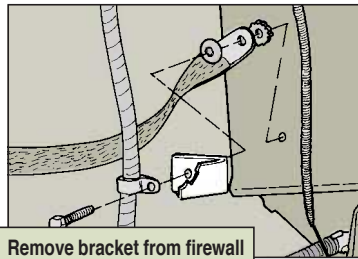
But it can happen when a driver pushes the accelerator pedal to the metal. The end of the hand throttle cable hangs up on the accelerator link stud. Then the engine won't idle down. It has to be stopped with the emergency engine stop control.

Here's how you mechanics can keep the linkage from sticking:

1. Remove the screw, nut and clamp that secures the end of the throttle cable to the bracket. Discard the screw and nut.



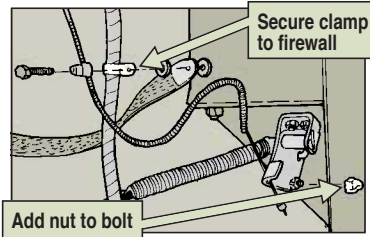
2. Remove the screw that fastens the bracket to the firewall. Discard the



bracket. The screw also holds a wiring harness clamp and a ground strap lug.

3. Use the screw that held the bracket to fasten the throttle clamp, the wiring harness clamp and the ground strap lug to the firewall.

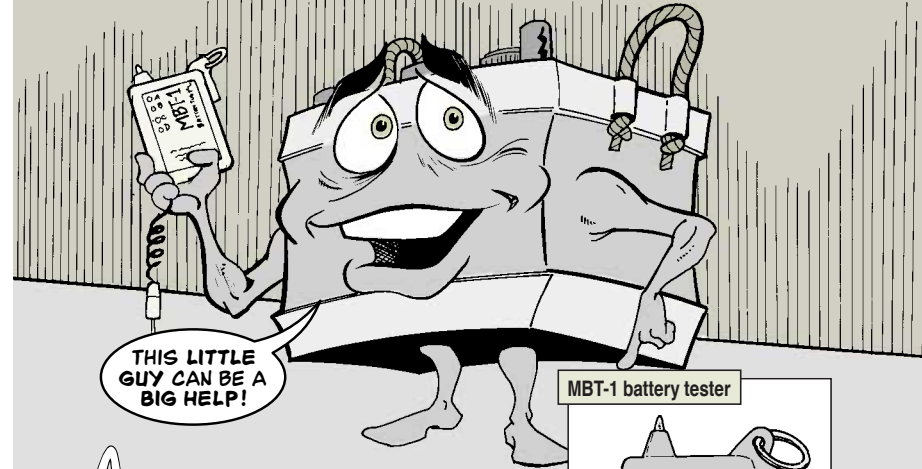
4. Finish the job with a cap nut, NSN 5310-01-057-5518. Screw it on the throttle link stud of the accelerator bell crank. This nut will keep the end of the throttle from catching on the stud.



DON'T LET A STUCK THROTTLE RUIN YOUR DAY!



New Tester Available



MBT-1 battery tester

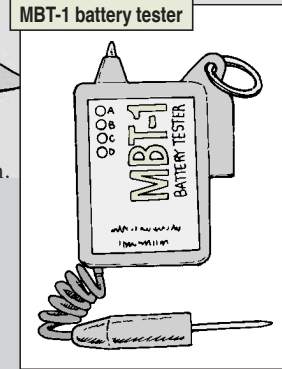
A small device that lets you load-test 12-volt batteries in less than 30 seconds without opening a single cell is now available in the supply system.

NSN 6130-01-463-8499 gets a tester that is easier, safer and faster to use, and with more accurate results, than the standard optical sight glass or hand-held load tester.

Batteries don't need to be disconnected from the vehicle to perform the test, but the engine must not be running.

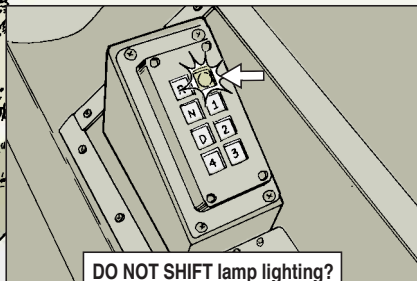
Use the 12-volt device to test each battery this way:

- 1.** Place the tester's positive post against the battery's positive terminal.
- 2.** Slide the negative probe out of the tester's storage slot and place it against the negative battery terminal.
- 3.** One of four LEDs on the front of the tester will light. Each light represents a letter code describing the battery's condition:
 - A**—Good battery. Do not replace. Will start the vehicle.
 - B**—Low battery. Slave the vehicle and let the battery charge, then retest.
 - C**—Discharged battery. Turn in for more testing and service.
 - D**—Bad battery. Turn in to battery shop for analysis and final action.



Transmission Won't Shift?

Operators of some PLS tractors are reporting problems with transmission **DO NOT SHIFT** lights or transmissions that won't shift. Alternator voltage peaks are a possible cause.

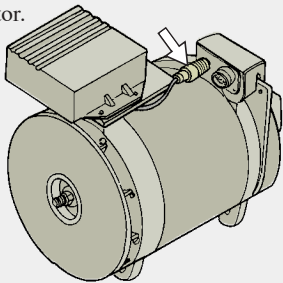


DO NOT SHIFT lamp lighting?

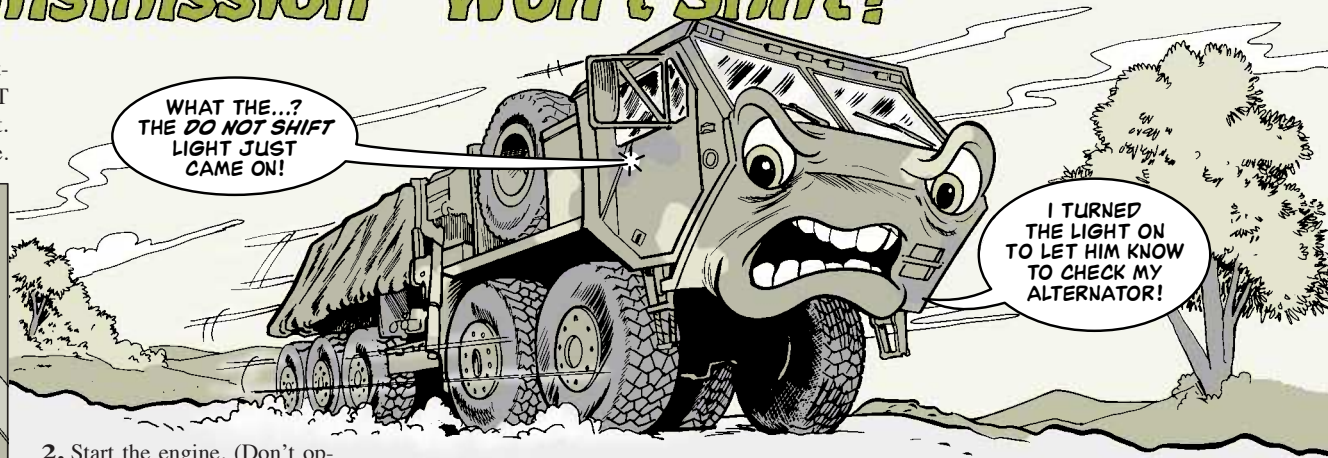
Some PLS tractors, built between Aug 97 and Jun 99 with serial numbers 63479 through 66375, are experiencing voltage peaks on the 200-amp alternator. The peaks show up as **DO NOT SHIFT** lights on the dashboard, or even as a transmission that won't shift after the engine is started.

Here's an easy check mechanics can use to determine if the alternator is the problem:

1. Disconnect the electrical connector from the voltage regulator mounted on the alternator.



Disconnect regulator connector from alternator



2. Start the engine. (Don't operate the truck for too long with the regulator disconnected or you'll run down the battery.)

3. Check to see if the **DO NOT SHIFT** light goes out. If it does, the alternator is the problem and there's a capacitor installation kit available to fix it.

Contact the Oshkosh Truck Defense Service Department, (800) 235-9151, Ext 2681, to get the free kit.

All tractors with 200-amp alternators installed after Jun 99 and with serial numbers 66376 and higher have the capacitor already installed. The alternators have serial numbers 318 and higher.

If the **DO NOT SHIFT** light stays on when the truck is started with the voltage regulator disconnected, the alternator is not the problem.

Continue to troubleshoot.

HEMTT Tankers ...

Check for V5 Valve Interference

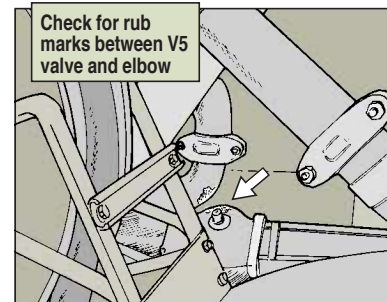
Next time you mechanics have the right-side access cover off your M978-series HEMTT tanker, eyeball the V5 flow valve air actuator and the 90° pipe elbow just above it.

If the two components are touching or if you see wear marks on the pipe where they've rubbed against each other, your tanker is NMC until repairs are made.

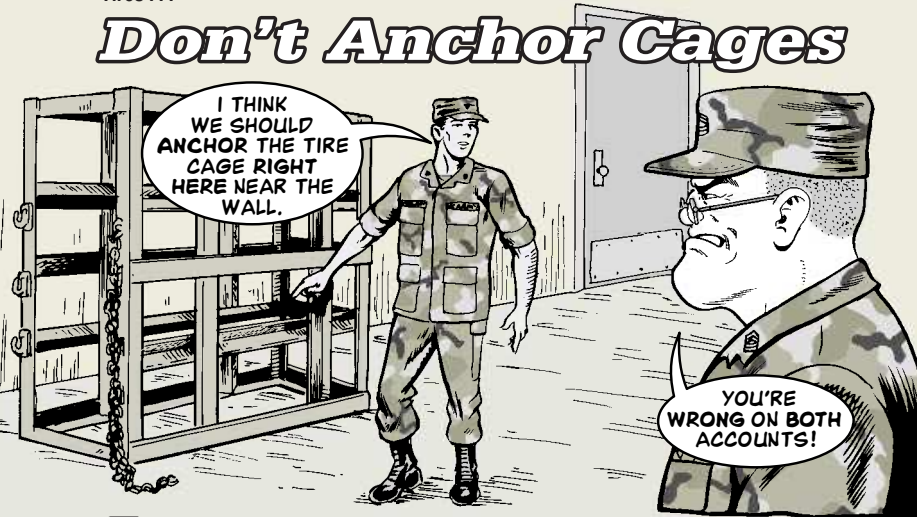
The rubbing eventually will put a hole in the elbow, creating a fire hazard and spilling fuel on the ground.

Repair procedures to fix this problem, which first surfaced in the early '90s, are in TACOM Safety-of-Use Message (SOU) 94-07. Contact your local TACOM logistics assistance representative for a copy.

If that doesn't work, let Half-Mast know. Give him an address and he'll send a copy by mail.



Don't Anchor Cages



Forget what TM 9-2610-200-14, *Care, Maintenance, Repair, and Inspection of Pneumatic Tires and Inner Tubes*, says about anchoring tire safety inflation cages to the floor.

Paragraph 2-3f of the TM says that while it is not mandatory to anchor a cage to the floor, it is the preferred method. **Wrong!** Tire cages should be unrestrained so they can freely flex and absorb the forces of any tire explosion.

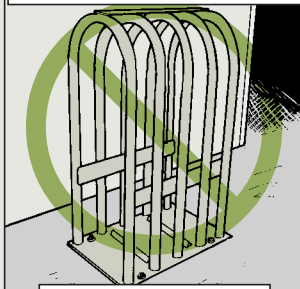
Fastening the cage to the floor prevents the flexing of the steel plate bottom. If the plate cannot flex, explosive forces are concentrated on the cage bars. Failure of one or more of the bars during an explosion may allow the release of wheel rim components, or pieces of the cage itself.

Testing shows that the cage and wheel assembly will not move much in an explosion. But keep the cage at least 3 feet from any wall. That helps keep the cage from moving if a high volume of air bounces off the wall—and back toward the cage—when the rim separates.

The tire TM is under revision, but until it is available, make a note in Para 2-3f that cages should not be anchored.

An added benefit of this change is that you can take your tire cages with you to the field.

Keep cage at least 3 feet from wall



Don't anchor cage to floor

Wheel Lift Parts Available

When you need repair parts for your motor pool's wheel lift truck, NSN 4910-00-554-5983, don't look for NSNs. There are none.

You can get parts, though, by writing to:

Nestor Sales Inc
7337 Bryan Dairy Rd
Largo, FL 33777

Or you can call them at (727) 544-6114. Ext 376 gets the repair department and Ext 347 gets government sales.

THESE TIPS SHOULD GIVE YOU A LIFT!



Truck MWO Generates Tires

An on-going MWO to add antilock brakes to M939-series 5-ton trucks is generating serviceable tires that your unit might be able to use. The MWO puts new radial tires on basic model 939s, which means bias tires—NSN 2610-00-262-8653, 11.00-20, 12-ply, load range F—are excess to these trucks. If you have vehicles that use this tire, check with your local DRMO or MWO coordinator for what may be available in the system and how to get them.

Ask the Tire Team

Have questions about the tires used on your vehicles, or questions about tire safety, or about tire-related NSNs? Call the experts—TACOM's Team Tire—at DSN 786-4258/4271 or (810) 574-4258/4271. Or e-mail them at: teamtire@tacom.army.mil

Visit their web site at:

<http://www.tacom.army.mil/immc/Support/Teamtire/home1.htm>

Keep Final Drives Covered

Dear Editor,

After pulling the powerpack in your M88A1 recovery vehicle, the final drives are left uncovered. That means dirt, sand, water and other debris have full access to the final drives.

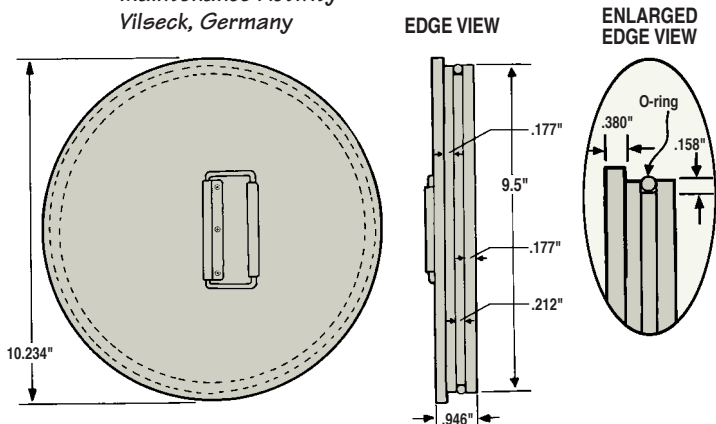
One way to protect final drives is to cover them with plastic bags and tape. But the bags are easily torn and tape leaves behind a sticky residue that's hard to clean up. Too many mechanics take their chances and leave the final drives completely unprotected.

We've designed a homemade final drive cover that's easy to use and keeps dirt out.

Here's what your support needs to make the covers:

Item	NSN	Qty Needed
Aluminum plate (makes up to 24 covers)	9535-00-835-4060	1
Handle	5340-01-200-9450	1
Machine screws (100)	5305-00-054-6651	3
O-ring	5331-00-291-1989	1

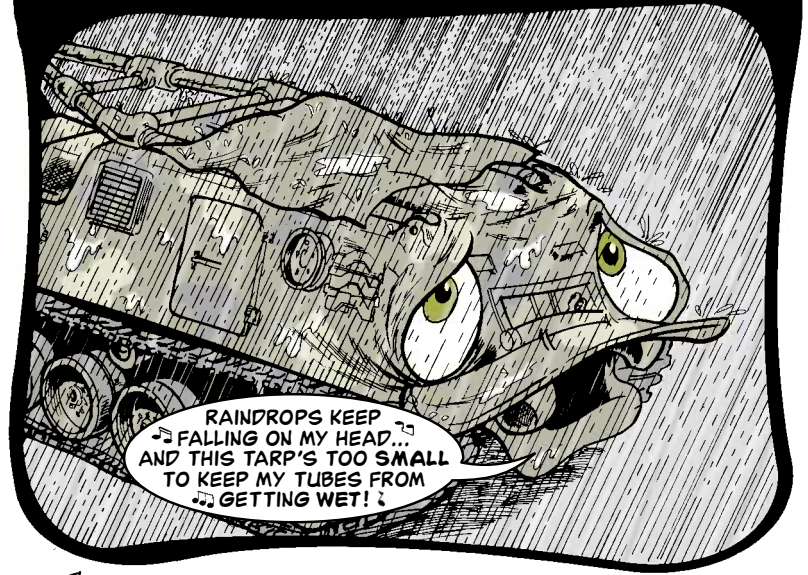
Peter Kohler
Maintenance Activity
Vilseck, Germany



FROM THE DESK OF THE *Editor*

Looks like you've finally got those drives covered! Good work! This drawing will be added to the special tools list in TM 9-2350-256-20 at the next update.

Are You Covered?

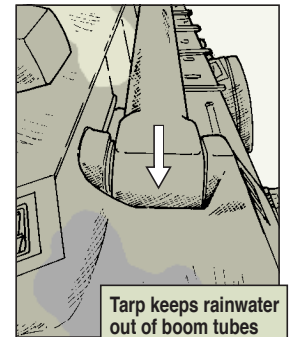


Appendix B in TM 9-2350-256-10 gives you the option of a 12x12-ft tarp, NSN 2540-00-653-7589, or a 12x17-ft tarp, NSN 8340-00-841-6456, to help protect your M88A1 recovery vehicle from the elements. Which one should you choose?

In this case, more is better. The 12x12-ft tarp doesn't cover enough of the top of your vehicle, especially the boom tubes. Rainwater falls straight down the boom tubes and fills the hull.

Even if you drain the hull regularly, some of that water is going to evaporate—and condense right onto the main winch and the hoist winch drum. That gives rust a foothold.

So always order the 12x17-ft tarp. It's big enough to cover the boom tubes and keep rainwater out.



Before, During or After?

Hercules crewmen, the engine oil level check in TM 9-2350-292-10 is no longer an after-operation check. To get the best possible reading, the check needs to be done **before** and **during** operations.

It's going to be a while before the TMs can be updated, so cross out the after-operation check that starts on Page 2-49 and pencil in the new checks to your -10 TM.

Before Operation

The new before-operation check will be Item No. 4.1 on Page 2-26.1 of the

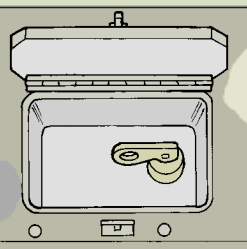
-10 TM. Here's what you'll see:

CAUTION

Perform engine oil check with vehicle on a level surface and engine stopped for at least two hours. Do not use ENG. IDLING RANGE side of oil gauge rod to measure engine oil level. Use of ENG. IDLING RANGE side of oil gauge rod could result in equipment damage.

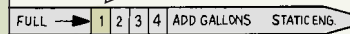
- Park vehicle on a level surface.
- Open engine deck door (page 2-112).
- Open engine oil check access door.
- Open ENGINE OIL LEVEL door.

Open engine oil level access door and remove oil gauge rod



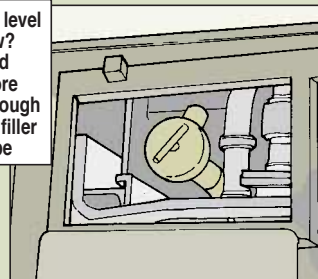
- Remove oil gauge rod and wipe clean. Insert oil gauge rod in gauge tube. Remove oil gauge rod. Verify oil level on STATIC ENG. side of oil gauge rod is between FULL and 1-gallon range.

STATIC ENG side of rod should read between FULL and 1 gallon



- If oil level is below FULL, add the amount in gallons indicated on the oil gauge rod. To add proper grade oil (Appx F), open engine oil fill access door, and add oil through engine oil filler tube.

Oil level low? Add more through oil filler tube



During Operation

The new during-operation check will be Item No. 15.1 on Page 2-34.1

of the -10 TM. Except for the addition of a CAUTION and NOTE at the start of the check, it's a carbon copy of the after-operation check that starts on Page 2-49.

Add the following:

CAUTION

This engine oil level check method should only be used when it is impractical to wait at least two hours with the engine stopped.

NOTE

Check oil level during extended missions at least every 8 hours with engine running. Verify oil level using engine stopped method (Page 2-26.1) as soon as possible.

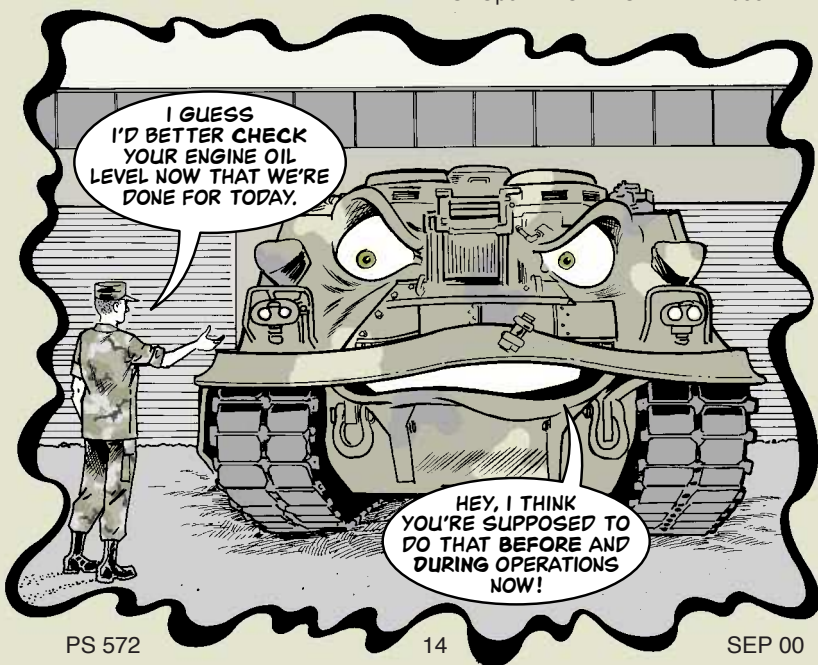
Oil Change Change

The main engine crankcase oil change procedure in TM 9-2350-292-20-1 is being modified, too.

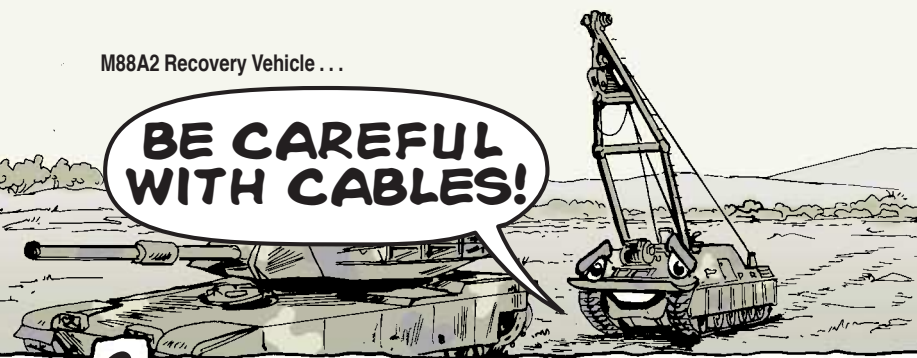
First, cross out the artwork that shows the ENG. IDLING RANGE side of the oil gauge rod at the bottom of Page 2-43.

Next, rewrite step O to read:

- Start engine (TM 9-2350-292-10) and allow to idle at 1000–1200 rpm until temperature gauge indicates 150°F (65°C). Shut down engine and wait at least two hours. Remove oil gauge rod (12), clean oil gauge rod (12), insert oil gauge rod (12) and verify oil level on STATIC ENG. side of oil gauge rod (12) is between FULL and 1-gallon range. If required, add additional oil to engine oil filler tube. Install oil gauge rod (12).



BE CAREFUL WITH CABLES!

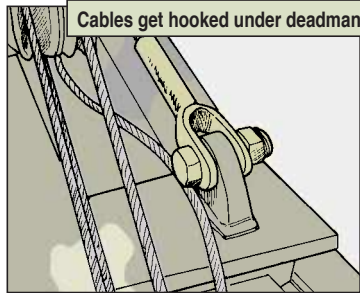


Crewmen, when erecting the boom on your M88A2 Hercules, pay special attention to the hoist winch cables.

The cables often get hooked under the cable lug (deadman). The pressure frays the cables and can even snap the bolt that holds the deadman in place.

With no way to anchor the winch cables to the boom, you won't be doing any lifting.

So do yourself and your Hercules a favor. Make sure the cables clear the deadman as the boom is raised.



Turbocharged PM

Mechanics, pulling and reinstalling the M578 powerpack causes a lot of wear and tear on the turbocharger air inlet hoses.

The cuts and tears that develop let in dirty, unfiltered air—a real engine killer.

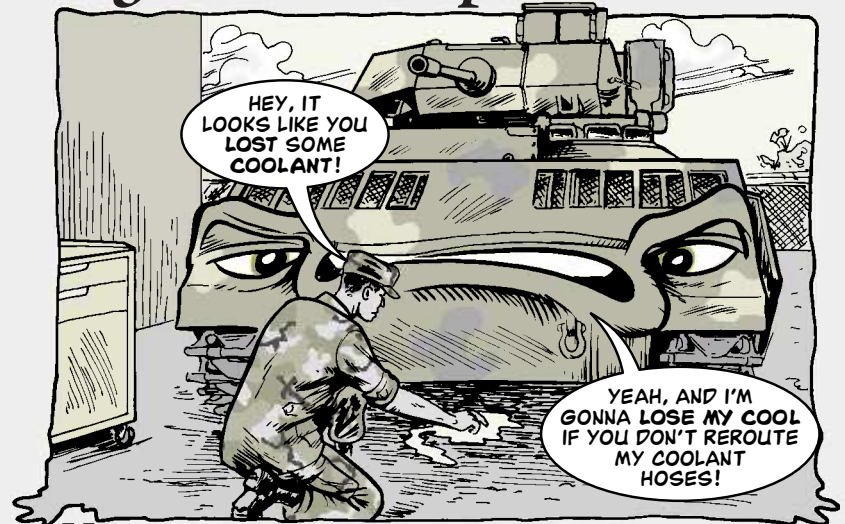
Look at those hoses every time you pull the powerpack. If they're badly scuffed or cut, replace 'em with NSN 4720-01-058-5103.

Of course, the clamps that hold the hoses in place are important, too. If they're damaged or no longer tighten enough to seal the hoses, get new ones with NSN 4730-00-725-0537.

Good hose and clamp PM is a sure-fire way to keep that vehicle breathing easy.



Right Route Keeps Hoses Cool

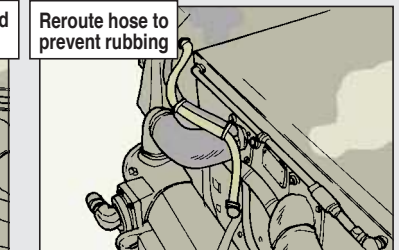
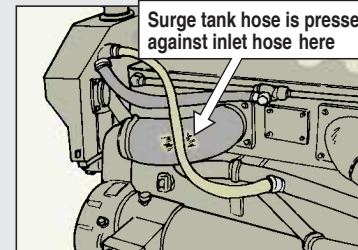


Mechanics, the way coolant hoses are routed can make the difference between a Bradley that's ready to go and one that leaks like a sieve.

On most Bradleys, the small surge tank coolant hose lays across the radiator inlet hose. With the engine in place, the surge tank hose is pressed against the inlet hose by a metal beam in the engine compartment.

That constant pressure is worsened by engine vibration. Eventually it cuts the radiator inlet hose. Then you've got a leaky hose to replace.

You can prevent this damage by rerouting the surge tank hose. Use two 6-in wire ties, NSN 5975-00-984-6582, to attach it to the second surge tank hose. That keeps it above the radiator inlet hose and out of the danger zone.

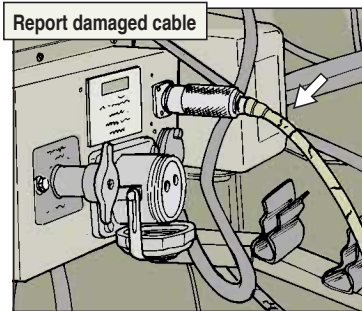


Don't Get Zapped!

Drivers, unless you're partial to being fried, you better learn how to install and remove the M19 or M19A1 infrared periscope power cable in your vehicle.

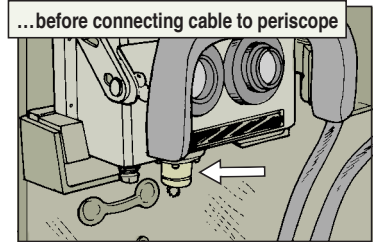
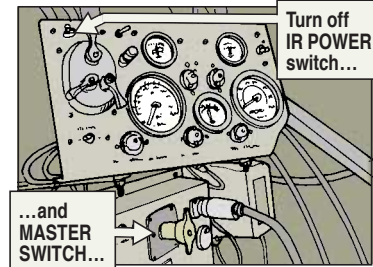
Playing fast and loose with TM procedures can leave you with a burned-up power supply. It can also leave you seriously burned or dead from a jolt of 16,000 volts!

Before hookup, make absolutely sure there are no rips, tears or bare wires on the cable. If you spot any, report 'em.



Never connect the cable to the periscope while both the MASTER SWITCH and IR POWER switch are turned to ON. If you do, the current may arc from the metal connector

you're holding to the periscope—a potentially re-volting development.

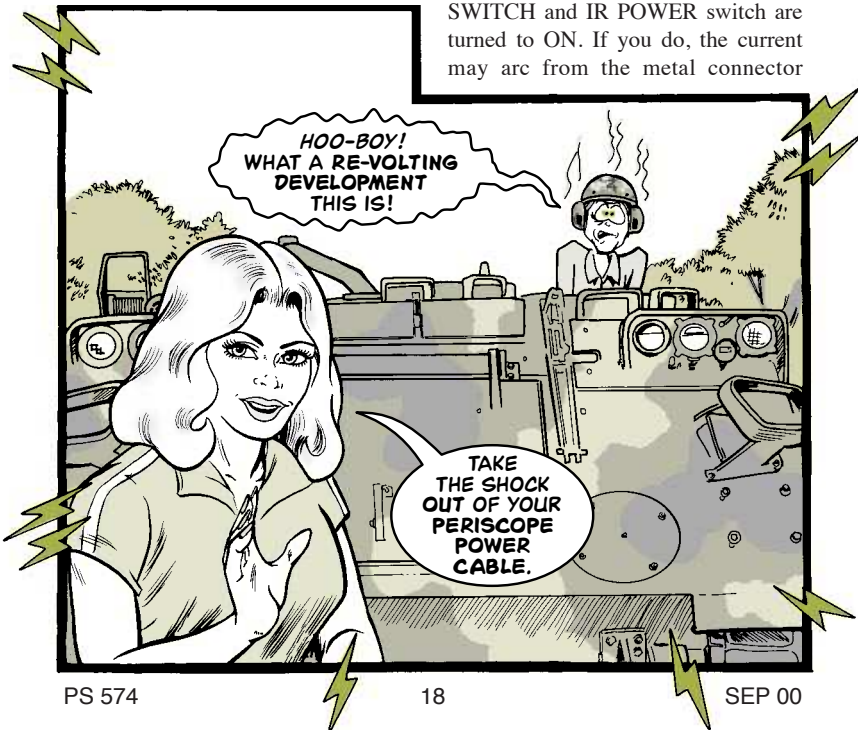


Hook the cable up first, then turn the switches to ON.

To make sure the periscope is powered down and there's no chance of electrocution, always do the following **before** disconnecting the power cable:

1. Make sure both switches are turned to OFF.
2. Wait at least 2 minutes after turning off the periscope.
3. Make sure the image has disappeared from the periscope screen.

Even after following all three steps, you should still play it safe. After disconnecting the power cable, don't touch the end of the connector or allow it to touch any metal surfaces. Once the cable is attached to the stowage receptacle on the master switch panel, you can breathe easy.



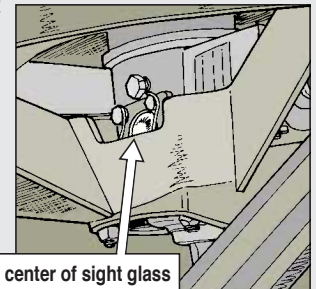
Don't Forget Fan Gearbox

No matter how good your memory is, it's easy to forget to check the oil level in the fan gearbox—unless you follow the LO!

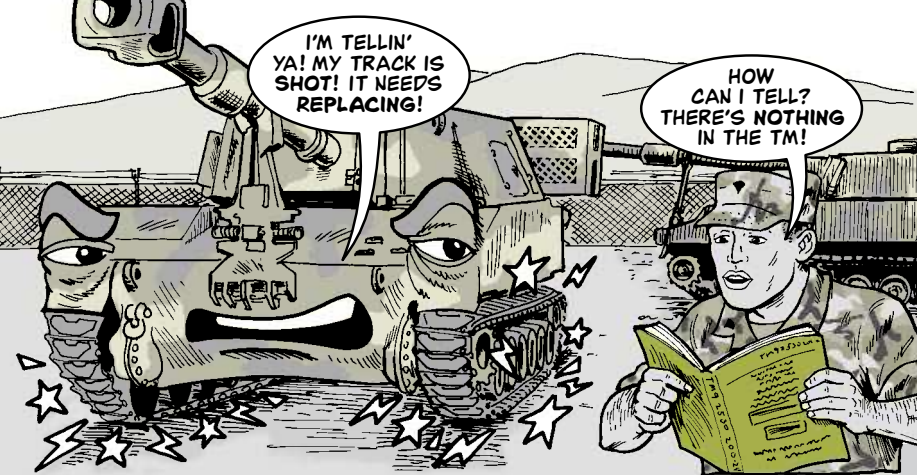
The gearbox sits far back in the engine compartment, so it's easy to overlook. But, if the oil level gets low enough, the bearings seize up and the gearbox is ruined.

Then your vehicle is NMC until the gearbox comes back from support for repair.

Oh, another thing to remember: The fan gearbox is a **monthly** check—not daily like the pointer says on Card 18 of LO 9-2350-261-12.



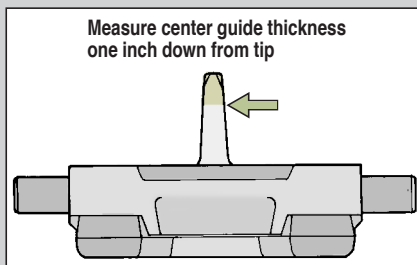
Get Back on Track



All track must be inspected and classified according to TM 9-2530-200-24, *Standards for Inspection and Classification of Tracks, Track Components and Solid-Rubber Tires*.

Problem is, T154 track was left out of the TM. So those of you with M109A6 Paladins and M992A2 ammo carriers are at a disadvantage.

Until the TM is updated, here's the annual inspection criteria for T154 track. All measurements are in inches.



	End Connector Thickness	Center Guide Thickness*	Grouser Height	Pad Thickness
Code A	3/8 min.	11/16 min.	13/32 min.	27/32 min.
Code B	9/32 - 3/8	9/16 - 11/16	9/32 - 13/32	21/16 - 27/32
Code C	3/16 - 9/32	7/16 - 9/16	9/64 - 9/32	15/16 - 21/16
Code F	1/8 - 3/16	1/4 - 7/16	0 - 9/64	1 or less

* Measure thickness at a point 1 inch down from tip of center guide.

Cool It on MCS Use

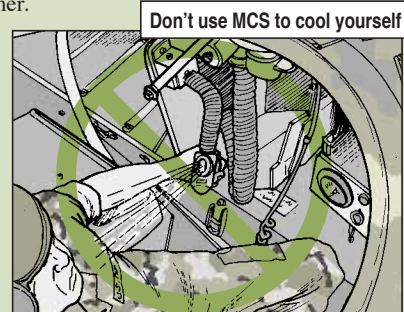
It can get real hot inside your Paladin, especially in the middle of summer. That's why a lot of crewmen like to use the micro-climactic conditioning system (MCS) as their personal air conditioner.

The MCS is supposed to be used only to provide clean air to the crew's NBC masks when needed. However, some crewmen open the cap on the MCS hose and use the air to cool themselves.

While you might be more comfortable in the short run, the MCS pays the price down the road. You could pay, too.

The brushes inside the MCS' electric motor will only last so long. So using the MCS as an air conditioner reduces the motor's life and adds to the maintenance costs of your unit.

The motor might fail when you need it most, too. That wouldn't be too cool.



Listen Up!

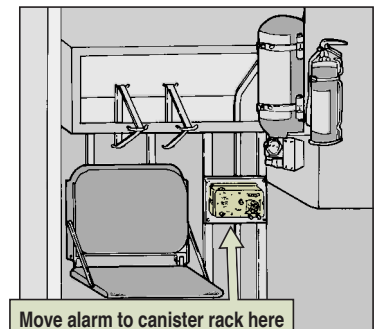
Drivers, what good is the M42 chemical agent alarm in your M992A2 ammo carrier if you can't hear it?

Unfortunately, you probably won't hear it if you're operating your carrier and using the intercom system at the same time. All that noise can drown out the NBC alarm when it sounds from its location on the crew compartment ceiling.

That's why you should move the alarm to a new location—the forward left canister rack. In that position, the alarm is much easier to hear.

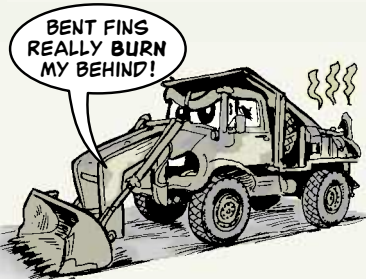
Get your mechanic to move the alarm following the instructions on Pages

3-14 through 3-22 of TB 43-0001-62-8 (Jan 99). If you need a copy, see your local TACOM logistics assistance representative or write to Half-Mast.



SEE ...

Bent Fins Block Air

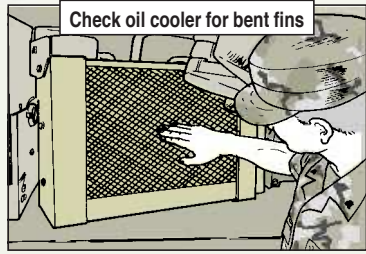


Some well-meaning operators use high-pressure water on the SEE's hydraulic oil cooler.

They're trying to get dirt and caked mud off the cooler's fins to let cooling air in. But, what they do is bend fins and that keeps air out.

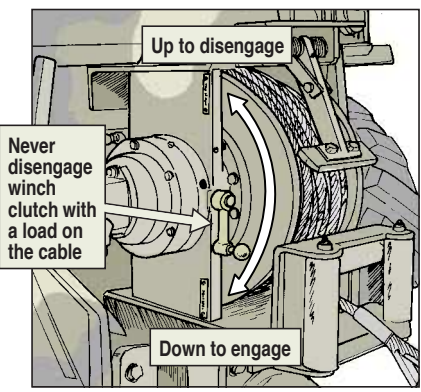
Without cooling air, the oil overheats, blowing seals and burning up O-rings on the cylinder rods. Then hot oil can make the SEE's attachments too hot to touch.

Lay off the high-pressure water. Instead, use low-pressure air or water from a garden hose and a brush to clean off the fins. And when you see bent fins, straighten them with the fin-straightening tool, NSN 5120-00-157-2180, in the Common shop sets.



Deployable Universal Combat Earthmover ...

Winch Warning



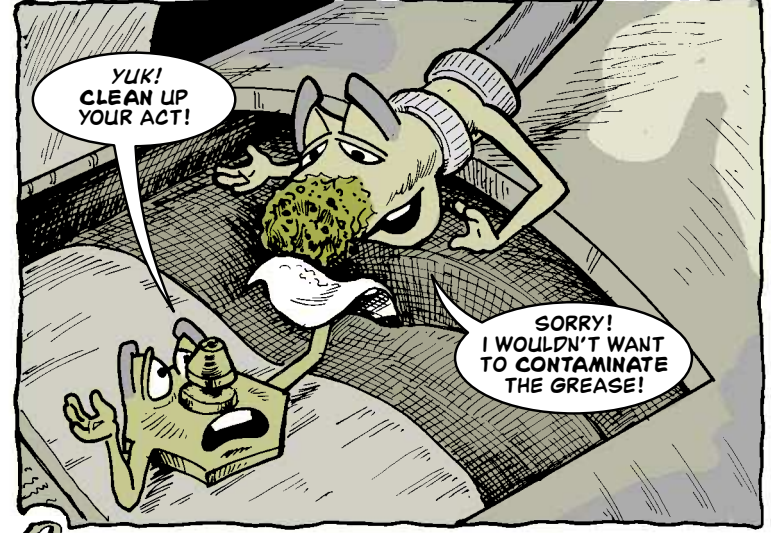
Operators, read and heed the warning on Page 51 of TM 5-2430-200-10 before using the DEUCE's winch.

Do not move the winch's clutch lever to the DISENGAGED position when there's a load on the cable. That releases the load on the cable and the earthmover will jump forward. Someone could get hurt—or killed!

For safety's sake, keep your hand away from the lever when there's a load on the cable.

D7G Tractors ...

Wipe Away Grit



Operators, you can stop damage to the D7G's track adjuster cylinders by keeping sand and dirt out of 'em.

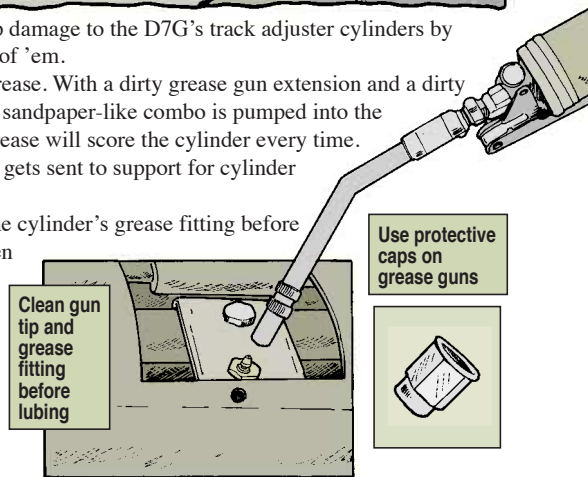
Dirt and sand stick to grease. With a dirty grease gun extension and a dirty grease fitting, an abrasive sandpaper-like combo is pumped into the cylinder. Contaminated grease will score the cylinder every time.

Eventually, your tractor gets sent to support for cylinder repair or replacement.

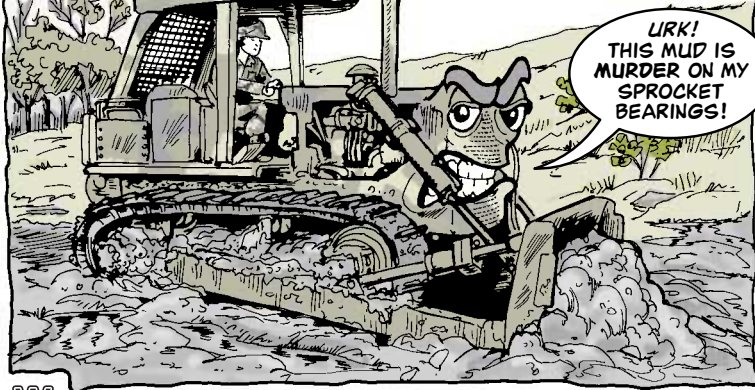
So wipe any gunk off the cylinder's grease fitting before you start the lube job. Then wipe off the dirty end of the grease gun.

You can help keep the grease gun's extension tube clean and ready for use with a protective cap, NSN 5340-00-904-6633.

At 15 cents each, order a bunch of caps. Get enough for all the grease guns in your No. 1 and No. 2 Common shop sets.



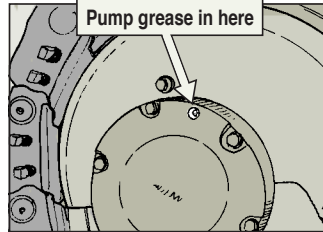
Sprocket Bearings Need Lube



Working in mud is murder on D7G drive sprocket bearings.

Water and dirt can get past the seals and into the bearings, causing corrosion that eats at the bearing's polished surfaces. Worn bearings knock the dozer's track out of alignment—causing excessive wear and tear on the vehicle's undercarriage components.

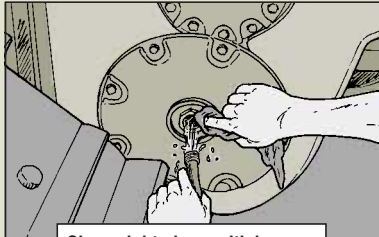
To head off problems, lube the bearings every time you finish a day's run in mud or water. Pump in grease until clean lube comes out around the diagonal bearing cap assembly, which is behind the drive sprocket.



Sight Gauge Cleaning

Operators, clean the sight gauge on your D7G dozer's winch the wrong way and all you'll see is damage.

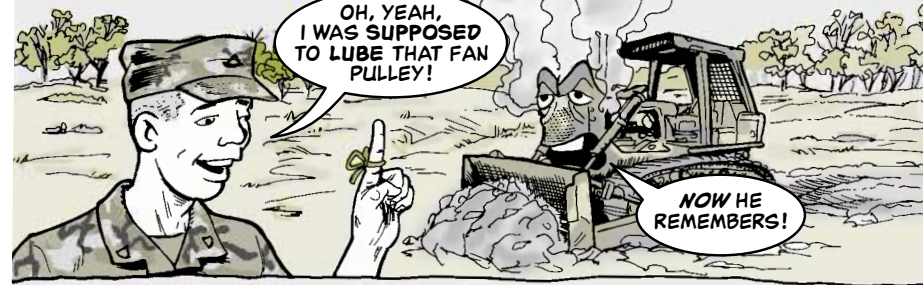
Wire brushes, screwdrivers or



knife blades will scratch the sight glass. Then you can't do a visual check for oil.

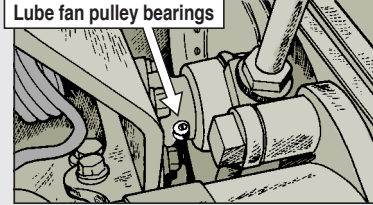
Clean the glass only with low pressure water and a clean cloth.

Remember the Fan Pulley



Operators, the grease fitting for the D7G dozer's fan pulley is hidden behind the fan blades. That means it's out of sight unless you hop up on the track, reach in, and try to find it.

Lube fan pulley bearings



Without lube, the fan pulley's bearing seizes up. Then the blade stops turning freely, letting the engine and transmission overheat.

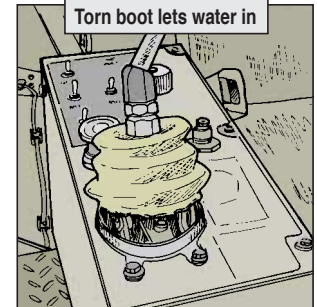
Don't make things hot for that bearing. Find its fitting and lube it during scheduled services.

Clamp Down Rubber Boot

Operators, a little water in the wrong place can bring your vibratory roller to a screeching halt.

The rubber boot that fits over the propulsion control valve and shift lever assembly can come loose during operation. If water gets past the boot, it shorts out the valve's electronic relays. The end result is a roller that won't shift or can't engage its power takeoff (PTO).

So eyeball the boot. If it's loose, report it. Your mechanic can put a hose clamp, NSN 4730-00-908-6294, around the boot's outer edge to hold it in place on the console.



Peek for Coupling Leak

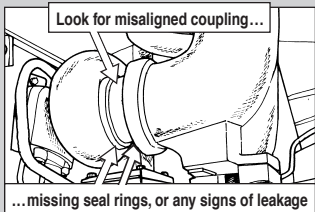


Operators, nothing shuts down grader operations like the loss of engine power. But, before you take your grader back to the shop, check its turbocharger for a coupling leak. You might be right back in business.

If the coupling is misaligned or if seal rings are missing or damaged, your grader will lose some turbo boost and it will seem sluggish.

So eyeball the coupling for a crooked connection to the muffler. Look for signs of leakage like carbon stains. Eyeball the seal ring to see if it's missing, cracked, split or torn.

PS 574



If you find any of these problems, tell your mechanic.

He'll loosen the muffler-to-turbo connection and align the muffler with the coupling.

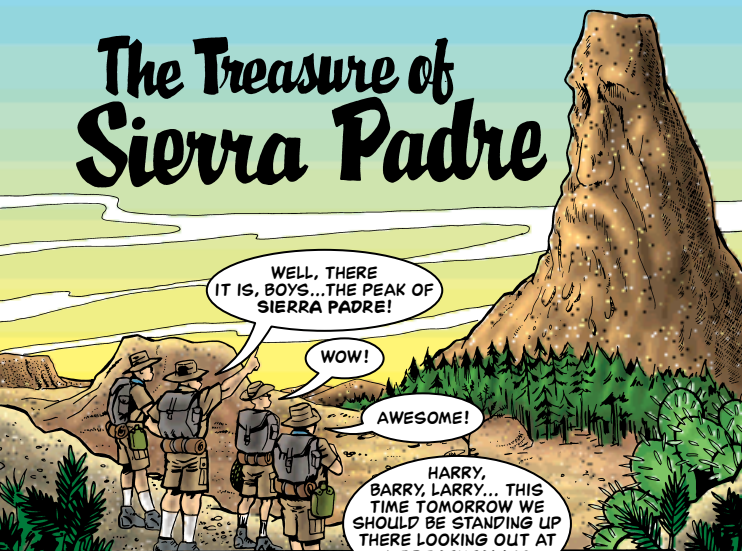
While he does that, he can look at the seal rings. If they're damaged, he'll replace them, the packings and the gaskets.

Once everything's OK, he'll tighten the connection and you're back in business.

26

SEP 00

The Treasure of Sierra Padre

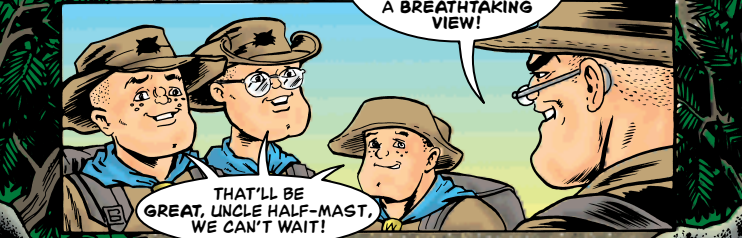


WELL, THERE IT IS, BOYS...THE PEAK OF SIERRA PADRE!

WOW!

AWESOME!

HARRY, BARRY... THIS TIME TOMORROW WE SHOULD BE STANDING UP THERE LOOKING OUT AT A BREATHTAKING VIEW!

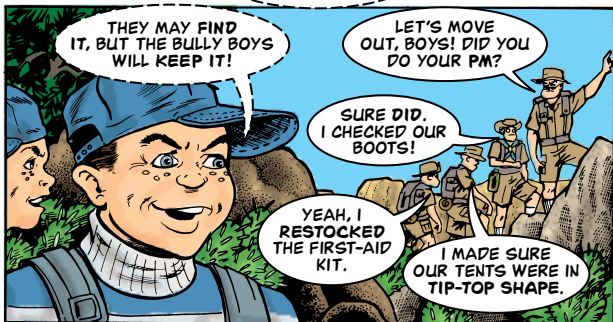
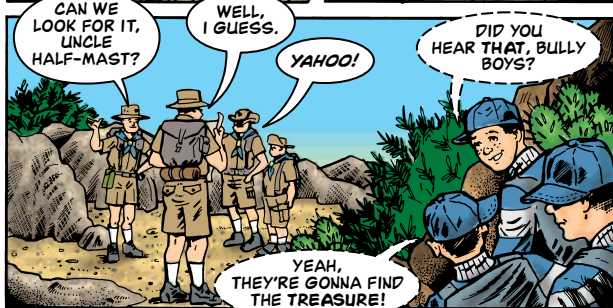


THAT'LL BE GREAT, UNCLE HALF-MAST, WE CAN'T WAIT!



LARRY! WHERE ARE YOU GOING?

LOOK! THERE'S SOMETHING IN THAT BOTTLE.



AFTER A GOOD NIGHT'S SLEEP AND A HEARTY BREAKFAST OF MRES, HALF-MAST AND HIS THREE NEPHEWS CONTINUE ON THEIR QUEST...

HMM... MY MANUAL SAYS MOSQUITOS ARE PARTICULARLY TROUBLESOME THIS TIME OF YEAR.

IT'S A GOOD THING WE KEPT OUR MOSQUITO NETTING PATCHED.

THE BULLY BOYS DID NOT HAVE A VERY GOOD NIGHT...

C'MON, LET'S GO!

OH, MY BACK! I WAS ON A ROCK.

I GOT EATEN ALIVE BY MOSQUITOS!

ACCORDING TO THE MAP, THE TREASURE IS SOMEWHERE AROUND HERE, BUT WHERE?

HOW ABOUT WE DIG BY THAT FUNNY X-SHAPED ROCK?

X MARKS THE SPOT, EH?

OH, YEAH!

WHAT DO WE DO?

WHEN I SAY NOW, WE PUSH THEM OVER THE CLIFF.

LET'S GET STARTED, BOYS.

NOW!



BON VOYAGE!

HAVE A NICE TRIP!

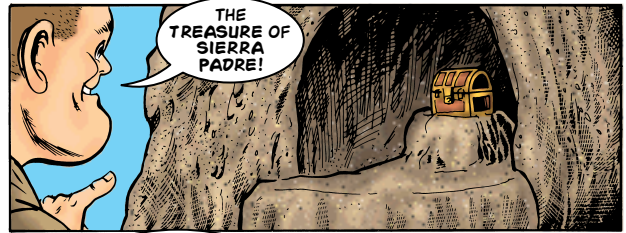
SEE YA NEXT FALL.

HARRY, BARRY, LARRY, ARE YOU ALRIGHT?

I THINK SO.

YES, UNCLE HALF-MAST.

HEY, YOU GUYS, I FOUND IT!



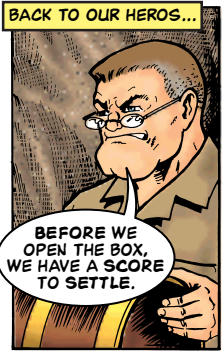
THE TREASURE OF SIERRA PADRE!



THESE DARN SHOVELS OF OURS! WHAT GIVES?

WHACK

ONE OF THESE THINGS HAS GOT TO WORK!



BACK TO OUR HEROS...

BEFORE WE OPEN THE BOX, WE HAVE A SCORE TO SETTLE.



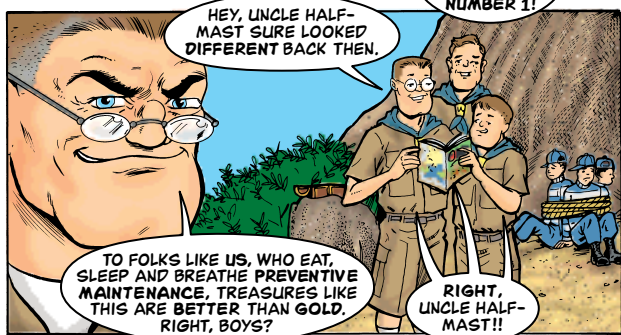
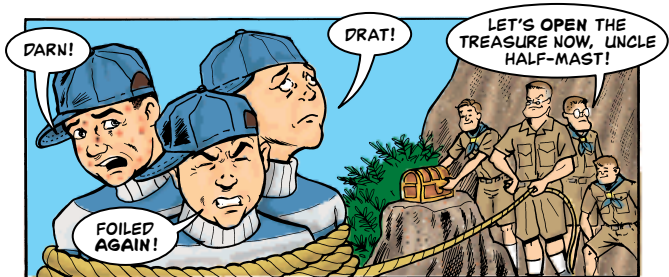
A SHORT CLIMB LATER...

WHOOSH!

YEAH!

IT'S ALL YOUR FAULT!

NOT ME! YOU!



Bake Desiccant Back To Life

You're servicing your unit AGPU's hydraulic reservoir vent dryer as outlined in Para 4-92 of TM 55-1730-229-12.

You find it's time to toss the old desiccant because it's less than the 25 percent blue called for by Item 8 in the operator's PMCS, but you don't have any new desiccant on hand.

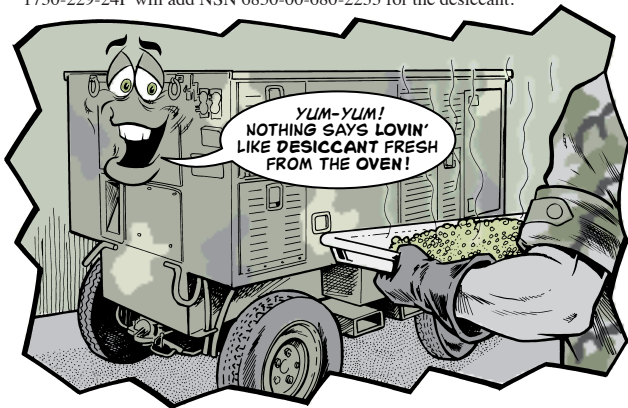
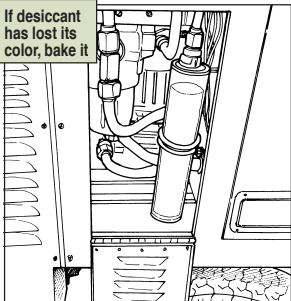
No sweat, just fire up the nearest oven. Until the new desiccant comes in, you can just bake the blue back into the old stuff. As long as its original color returns, it's good to go. Of course, always use fresh desiccant when you can.

To reactivate desiccant, bake it in an oven at 350° for 4 hours or until the original blue color returns.

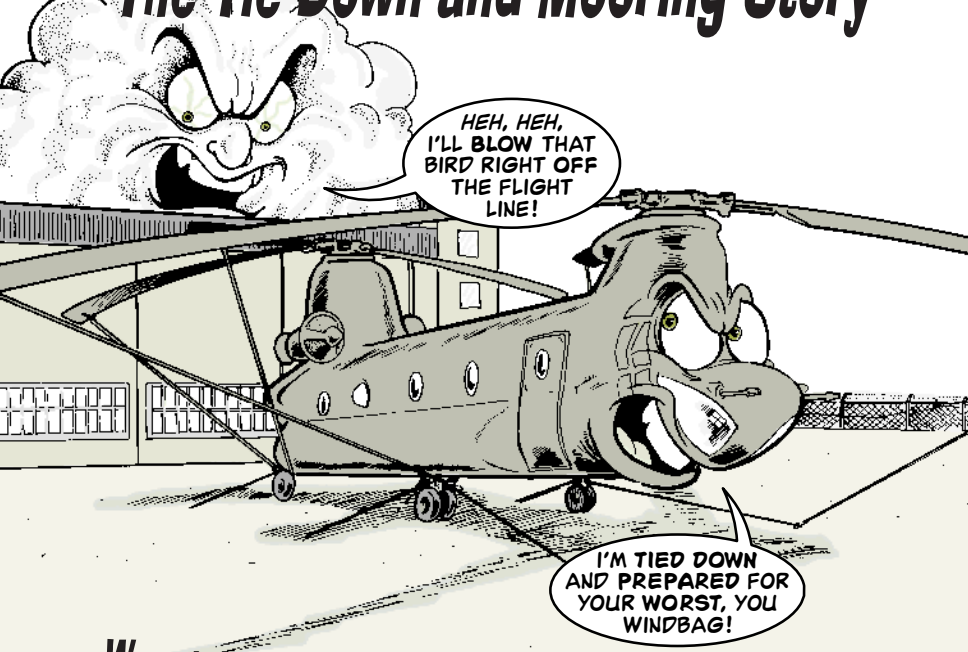
The blue color tells you the desiccant is ready to take out any moisture in the hydraulic fluid.

A change to TM 55-1730-229-12 will add the baking info. A change to TM 55-1730-229-24P will add NSN 6850-00-680-2233 for the desiccant.

If desiccant has lost its color, bake it



The Tie-Down and Mooring Story



When a big wind brews, make sure your birds are safely anchored to the ground and won't fly away on their own.

Typical blade tie-down instructions and aircraft mooring procedures for your bird are in its -23 TM.

But you should also check out TM 1-1520-250-23, *Aviation Unit and Aviation Intermediate Maintenance for General Tie-Down and Mooring On All Series Army Models AH-64, UH-60, CH-47, UH-1, AH-1, AND OH-58 Helicopters*.

It's the bible for aircraft tie-down and mooring info. It was written after a major windstorm devastated Ft Hood in 1989, and gives procedures and hardware to keep birds anchored in heavy winds.

This info is being added to individual aircraft pubs as they are updated.

If there are conflicts between an aircraft's pub and the tie-down manual, the tie-down TM takes precedence.

For more info on tie-down or mooring for your aircraft, contact AMCOM's POC, Lee Bumbicka at (256) 313-4925, DSN 897-4925 or e-mail:

lee.bumbicka@redstone.army.mil

Stop Gun Oil Buffer Leaks

Dear Editor,

During annual gauging and maintenance on the XM296 .50 cal machine gun, TM 9-1090-214-23&P tells us to fill the buffer assembly until hydraulic fluid runs out the filler holes. But that creates two problems.

First, you get a mess when you put the filler screws back into an overfilled buffer assembly.

Second, you can't clean the threads in the filler holes or apply sealing compound when the buffer is overfilled.

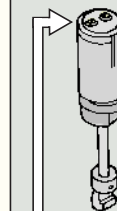
If the threads in the filler holes aren't treated with sealing compound, oil can leak out. As the oil runs low, the firing rate gets sluggish. If all the oil runs out, the gun could fire one shot and stop, or fire at its maximum rate.

We solved these problems by filling the oil buffer to just below the bottom of the filler holes. That stops the mess when the filler screws are put in and it lets us clean the threads and apply sealing compound.

Then, when we insert the filler screws (with sealant applied) a tight seal is formed.

Stopping leaks makes for cleaner equipment and avoids potential firing problems.

Oil buffer body assembly

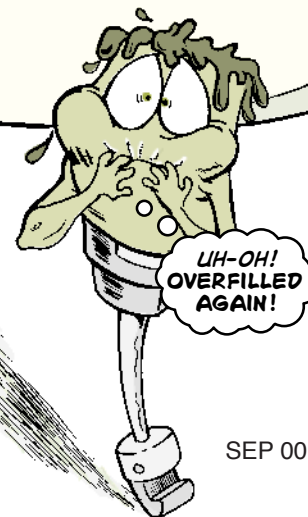


Fill to just below bottom of filler holes

WO1 Karl Verley
F Trp, 1/1st Cav
APO AE

FROM THE DESK OF THE Editor

Good work! That cleans up that problem. TACOM-Rock Island agrees with you and plans to add that change to the TM.



Make Quill Seal

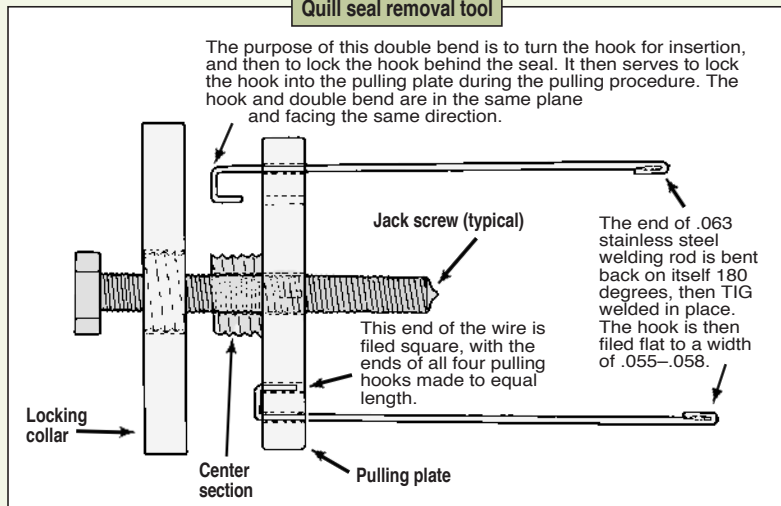
Dear Editor,

Removing the Black Hawk's input module quill seal is tricky business.

The procedure in TM 1-1520-237-23-4 takes up to 4 hours to do, and grounds the aircraft for 24 hours. If you're not careful, you can damage the seal housing, the input flange, and possibly your knuckles.

But, we've come up with a tool that lets us do the job in 1 hour, doesn't damage the seal housing and only grounds the aircraft for the time it takes to do the job. Any AVIM shop can make the tool. You make it like so:

Quill seal removal tool

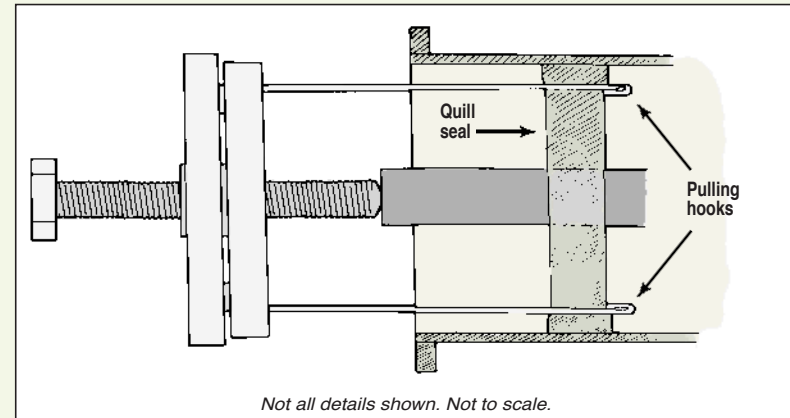


- The pulling plate and locking collar are made from 4 x 1/2-in 6061-T6 aluminum bar stock.
- The center section is made of 1-in aluminum round stock.
- The pulling plate has four pulling hooks made out of 1/16-in stainless steel welding rod and placed at 90° intervals. The holes are spaced 1 inch apart around the pulling plate.
- The jack screw is a 1/2 x 8-in bolt.

Removal Tool

Once the tool's made, use it like this:

1. Turn the hooks 90° and insert them into the gap around the seal. While the hooks are in place behind the seal, turn them back 90° and lock them into the pulling plate.



2. Turn the locking collar down on the double bends until snug.
3. Finally, turn the jack screw to remove the seal.

SPC Joel L. Zinne
K Co, 158th Avn
Ft Carson, CO

FROM THE DESK OF THE Editor

Good work. This special tool should save repairmen lots of time.

WITH THIS NEW TOOL, I CAN FIX YOUR QUILL SEAL A LOT QUICKER!

INSTEAD OF DOWN AND OUT, I'LL BE UP AND FLYING!

Keeping Your MGS Adaptable

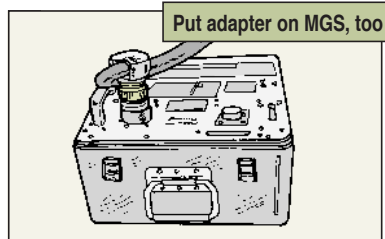
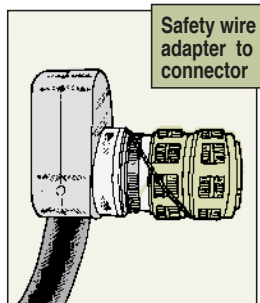
The missile guidance set (MGS) is the brains of your TOW missile system. If the MGS can't connect to the rest of the TOW, you've got a system that can't do diddley. That's why it's critical that you protect the MGS and 2W1 cable connectors.

Protection begins with the 2W1 cable adapter, NSN 5935-01-117-3304. If you bang up the adapter, it's no big deal to replace it at a cost of \$130 and minutes of work. But if you operate without the adapter and damage the cable connector, you're talking about a \$1,400 fix and lots of work.

Before you go to the field, make sure the adapters are safety-wired to all the 2W1 connectors. If any adapters are

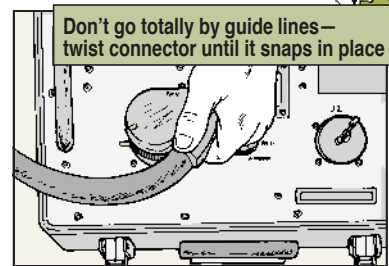
missing or not safety-wired, tell direct support.

The adapter can protect the MGS connector, too. If the MGS connector is banged up, the MGS interface board must be replaced at



a cost of \$2,000. That won't happen if you screw an adapter on the MGS connector.

When you are connecting the 2W1 to the MGS, don't trust the yellow guide lines. They are only a rough guide to connecting. If you jam the cable connector down following the guide lines, you can bust connector pins. Twist the 2W1 connector until you feel it snap down into place. Never force the connection.

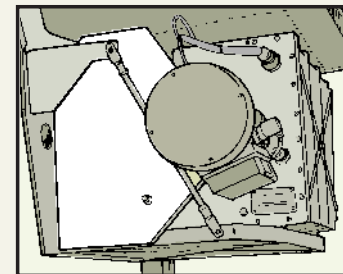


A Better Lens Cover

Dear Editor,

The rigid foam cover that most Avenger units fashion for the missile system's range finder does a good job protecting the finder lens. Unfortunately, the sun and weather can cause it to break apart and you have to keep replacing it.

I've found that a Dragon night sight's sack liner cover works better. It's a thicker and tougher kind of rigid foam. And it's the



perfect size—all you have to do is poke a hole in it for the knob that sticks out of the Avenger's range finder. Order the cover with NSN 1430-01-193-6651. It costs less than \$4.

SGT Jerry Reardon
C Co, 801st MSB
Ft Campbell, KY

FROM THE DESK OF THE Editor

You covered that problem well. The important thing is to keep some sort of cover on the range finder lens as much as possible. A cracked lens costs big bucks to replace.

MY CONNECTOR AND ADAPTER ARE IN FINE SHAPE.

THANKS TO CABLE ADAPTERS AND SAFETY WIRE!

To Heck with Hellfire Problems



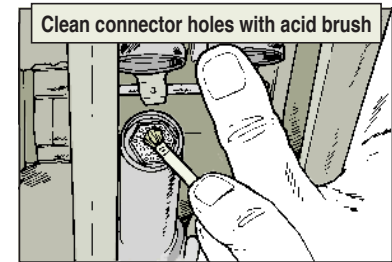
for some crud to get into the connector holes, especially if the launcher's been outside in the wind. It's a real good idea before you go on a mission to shine a flashlight in all four sets of connectors and check for dirt. If you spot any, remove it with an acid-swabbing brush and a water-detergent solution. Use the detergent, NSN 7930-00-282-9699, that's listed as Item 1 in Appendix D of TM 9-1425-475-23&P. Rinse the connector with clean water and let it air dry.

You can say to heck with Hellfire launcher problems if you remember a few simple rules and do a little quick PMCS.

Make sure the launcher's shotgun connector covers are down when missiles aren't loaded, which is most of the time. The covers are designed to stop sand and dirt from filling the connectors' pin holes. If the holes plug up, the missile's connector pins won't make a good electrical connection or

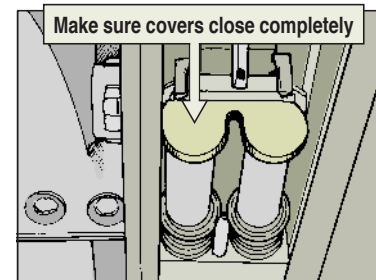
the pins will be bent. Either way, you're not going to fire any missiles.

Don't just flip the covers down and move on. Get down and make sure the connector covers have closed completely. Even a tiny rock wedged between the cover and connector can keep the cover from sealing out dirt. If the covers won't close completely, your repairman needs to adjust them like it says in Para 2.42 in TM 9-1425-475-23&P.



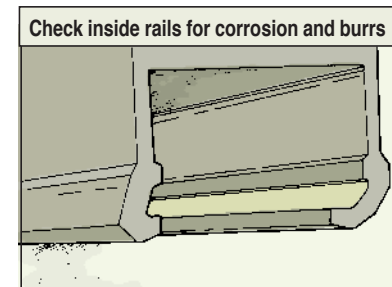
Clean connector holes with acid brush

Also look in the inside of the launcher's rails for burrs that could cause the missiles to hang up. Burrs mean the rail must be replaced. Look for corrosion inside the rails, too.



Make sure covers close completely

But even if you faithfully keep the connector covers down, it's possible



Check inside rails for corrosion and burrs

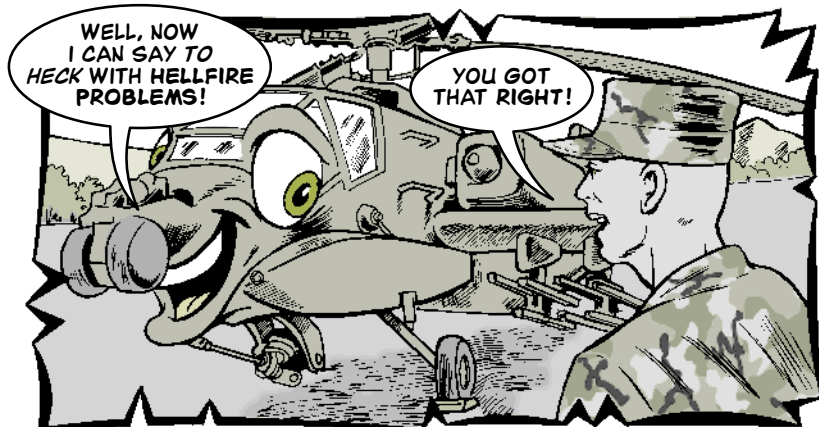
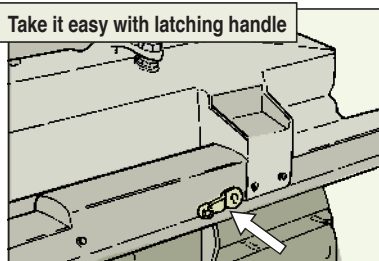
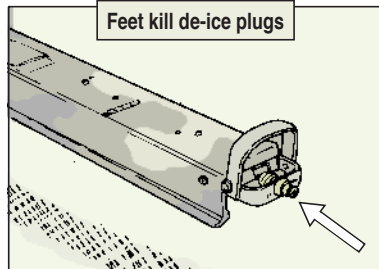
Rub out corrosion with the new cleaning procedure that will be added by Change 9 to TM 1-1520-238-23-1. See your AMCOM logistics assistance representative for an advance copy. Never file or sand the launcher. The launcher's plating can be hazardous if it gets in your lungs. Don't lube the inside of the rails. That attracts dirt.

Another good check is to make sure the SAFE/ARM switch stays where you set it. If the switch flops back and forth because someone's stepped on it and broke it, you have no way of telling what the switch is set at. If the switch won't stay in one position, tell your repairman.

Does SAFE/ARM switch stay where it's set?



Feet are killers for the launcher, especially for the environmental protective cover's connectors. So stay off the launcher. Also take it easy with the latching handle. One good hit from the side can break a handle and make the launcher NMC. Pull the handles slowly but firmly.



Pin's for Firing, Swab's for Swabbing



A good, thorough cleaning is the best favor you can do your M16-series rifle or M4/M4A1 carbine. But if you use a firing pin or cotton swab to do that cleaning, you're doing your weapon a disfavor.

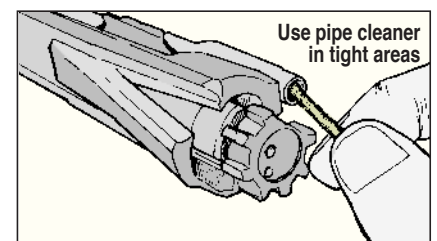
The firing pin's job is to strike the cartridge primer hard enough to ignite the powder that propels the bullet. And that's it—it has no other job.

If you use the pin to ream the bolt or bolt carrier, the pin is blunted, burred, cracked or bent. If that happens, the pin can't do its job and you can't fire your rifle or carbine.

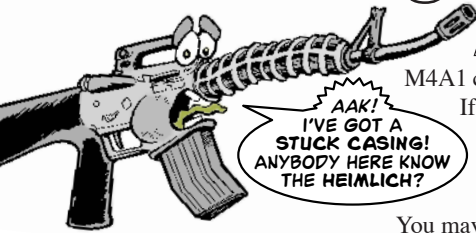
To clean the carbon from the bolt and carrier, use a couple of drops of CLP, a worn bore brush and a pipe cleaner.

Use pipe cleaners to clean out tight areas like the carrier key or trigger assembly.

What happens if you use a cotton swab for cleaning? The cotton comes off the swab and mixes with lube and carbon. That mixture hardens and does an excellent job of plugging the carrier key. Your rifle or carbine fires once and stops.

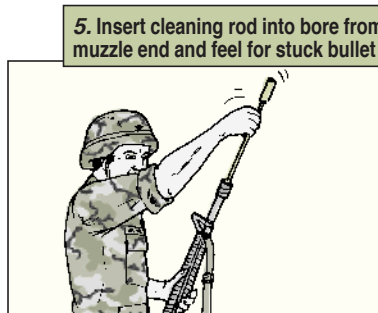
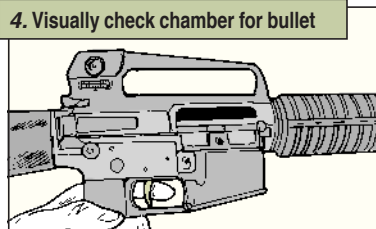
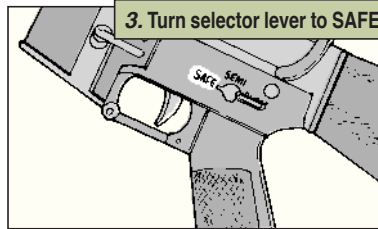
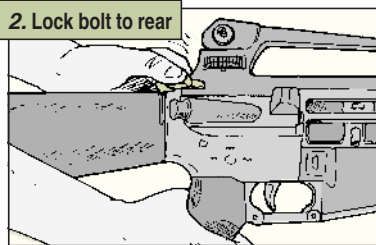
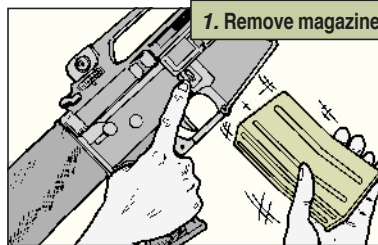


Unsticking Stuck Round



A stuck round in your M16-series rifle or M4A1 carbine can stick you if you're not careful. If you hear an unusual pop while firing...or if you have reduced recoil...or if your rifle or carbine fails to chamber a new round...**STOP FIRING! WAIT!**

You may have a round stuck in the weapon's bore. Here's the drill for checking out your weapon:



Find a stuck bullet? Leave it alone. Your armorer removes stuck bullets. No bullet? Then you have a spent casing that didn't eject. Use the cleaning rod to poke out the casing.

Plotting Boards on Board?

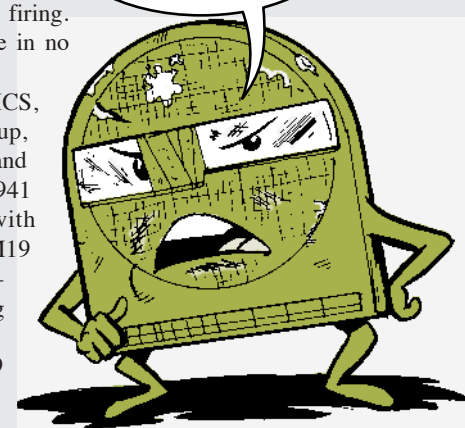
The M23 mortar ballistic computer has made fire plotting easier for mortarmen. But that doesn't mean you should forget the M16 and M19 plotting boards.

If the M23 computer fails in the field, you will need the M16 or M19 for accurate firing. If they're not in good condition, you're in no condition to fire.

As part of your before-operation PMCS, check your plotting board. If it's beat up, get a new one. Order an M16 board and accessories with NSN 1220-00-602-7941 and its replacement azimuth disk with NSN 5355-01-452-9633. Order the M19 board and accessories with NSN 1220-01-059-7989 and its replacement plotting scale disk with NSN 6675-01-077-4377.

Instructions for using the M16 and M19 are found in TM 9-1220-243-12&P.

JUST 'CAUSE YOU MORTAR MEN HAVE GOT THEM NEW-FANGLED COMPUTERS, DON'T FORGET ABOUT ME!

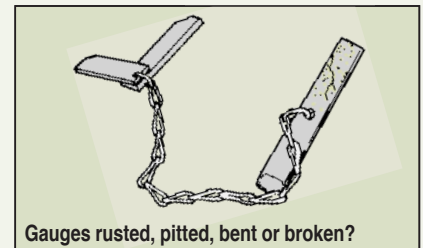


Gauging Your Gauge

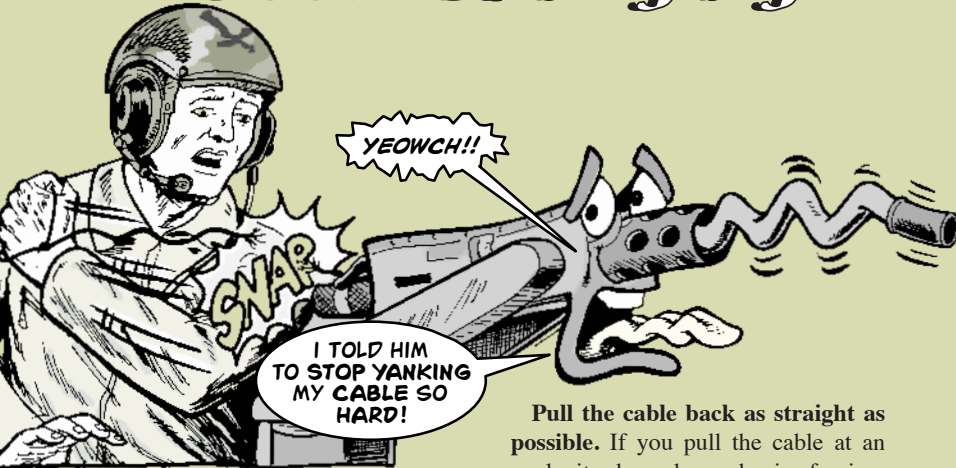
If you don't headspace and time your M2, M3 or M296 machine gun before you fire, it will either fire poorly or not at all.

But if the headspace and timing gauges are in bad shape, all your timing and headspacing will have been worthless. You will still have a weapon in no shape to fire—and you won't even know it.

That's why you must eyeball the gauges as part of your before-operation PMCS. If they're pitted, rusted, bent, or broken, they need to be replaced. NSN 5220-00-535-1217 gets both the headspace and timing gauges.



Good Charging



If you snap the M10 charging cable on your M2 machine gun, charging and firing stops.

Don't jerk the cable back. That can snap the cable if the bolt hangs up. A steady pull on the cable should be enough to lock the bolt back. If you feel resistance, stop. Ride the bolt forward, put your M2 on SAFE, open the feed cover, and see what the problem is. The feed selector is probably set to the wrong feed. If it's not, tell your armorer.

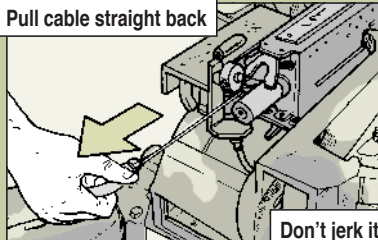
Pull the cable back as straight as possible. If you pull the cable at an angle, it rubs and soon begins fraying. A frayed cable deadlines your M2, plus it can cut you.

Guide the cable back when you release it. If you let it snap back, the cable hits the edges of the pulley swivel and frays or breaks.

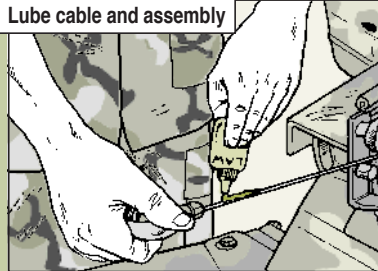
Don't wrap the cable around anything. That causes the cable to kink and fray.

Help the cable last by giving it a light coat of LAW or LSA when you clean your M2.

Pull cable straight back



Lube cable and assembly



DS2 DOs and DON'Ts

Dear Editor,

Your article on Pages 54-55 in PS 566 (Jan 00) made some good points about DS2, but you left out a couple:

- Any time you deal with leaking DS2 containers, you should wear chemical protective gloves and your M40 mask. DS2 and its fumes can injure your skin and your lungs.
- Do not store DS2 with STB, and do not store it in temperatures above 160° F or near open flames. That creates a fire hazard.

When dealing with DS2, never take shortcuts with protective equipment or storage.

SSG B. E. Deming
HQ Co, 7th Marines
Twentynine Palms, CA



Decon Kits OK for Masks

Dear Half-Mast,

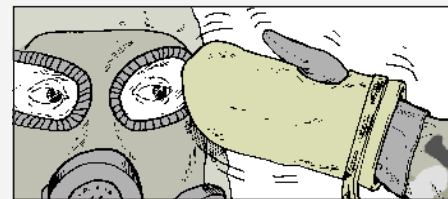
Is it OK to use the M291 and M295 individual decon kits on the M40 and M42 masks? We've heard that chemicals in the kits' wipes could harm the masks.

Captain J.G.

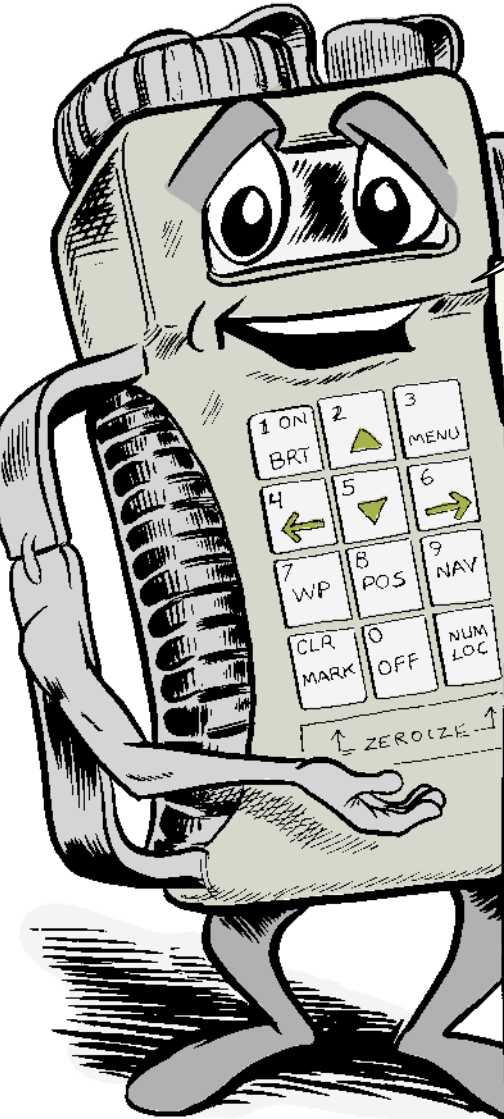
Dear Captain J.G.,

Both the M291 and M295 decon kits should be used to decon all your equipment, including your mask. Use the M291 on the inside of the mask facepiece and the M295 on the rest of the mask and hood. See TM 3-4230-235-10 and TM 3-4230-229-10 for more info on the decon kits.

Half-Mast



PLGR PARTS



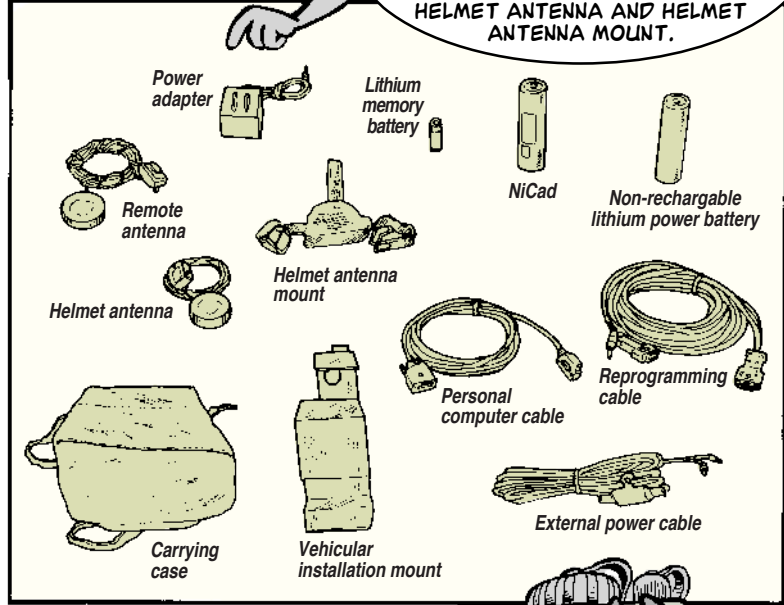
NEED TO LOCATE SOME HARD-TO-FIND AN/PSN-II PRECISION LIGHTWEIGHT GPS RECEIVER (PLGR) PARTS? HERE'S A LIST THAT WILL HELP YOU FIND YOUR WAY...

Item	NSN
AS-4333/V antenna remote	5985-01-375-4660
Remote antenna cable	6150-01-375-8662
Personnel case	5895-01-375-7528
Lithium power battery	6135-01-440-7774
AA alkaline battery	6135-00-985-7845
Lithium memory battery	6135-01-301-8776
Power adapter	6135-01-376-2168
Vehicular installation mount	5975-01-375-1302
External power cable	6150-01-375-8661
External power cable (with locking mechanism)	6150-01-469-6066
PLGR to PLGR cable	6150-01-375-8663
Personal computer cable	6150-01-375-8664
Battery holder	6160-01-385-4358

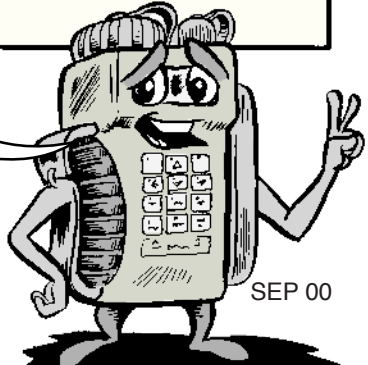


ADDITIONAL PARTS CAN BE FOUND EITHER IN APPENDIX G OR THE ADDITIONAL AUTHORIZATION LIST (AAL) IN TM II-5825-291-13.

THEY INCLUDE THE HAVEQUICK CABLE, SINGGARS CABLE, AIRCRAFT ANTENNA, PLGR REPROGRAMMING KIT, REGULATED POWER SUPPLY, PLGR REPROGRAMMING CABLE, CONNECTOR COVERS, PLGR TO ANCD CABLE, HELMET ANTENNA AND HELMET ANTENNA MOUNT.



REMEMBER, YOU DON'T NEED A PLGR TO PLGR CABLE, OR A PLGR TO PC CABLE, OR A POWER ADAPTER FOR EVERY PLGR IN YOUR UNIT. TWO OF THESE FOR EACH 10 PLGRs IS ABOUT RIGHT FOR MOST UNITS.



Shelters in

the Net, Too

THERE SURE IS A LOT TO KNOW TO KEEP AN MSE NETWORK FUNCTIONING.

BECAUSE OF THAT, PM ON YOUR AN/TRC-190 LINE-OF-SIGHT (LOS) MULTICHANNEL RADIO TERMINAL...

...AND AN/TRC-191 RADIO ACCESS UNIT (RAU) OFTEN GETS LOST IN THE SHUFFLE.

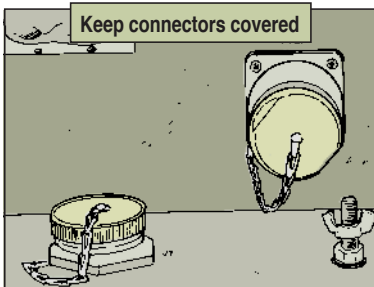
HERE ARE A FEW TIPS TO KEEP YOUR LOS AND RAU SHELTERS IN THE NET!

Power Entrance Panel

Dirt and moisture can foul the contacts of the AC and DC power connectors in the power entrance panel. Bad contacts mean a loss of power.

Protect connectors with metal covers when you're not using them. Get the cover for the AC power connector with NSN 5935-00-114-5781. NSN 5935-00-926-7423 brings the DC connector cover.

Eyeball the ground lug for dirt, grease, corrosion or paint.

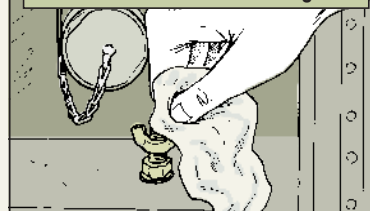


These four are good ground killers. Remove dirt and grease with solvent, NSN 6850-00-281-1985. Use sand-

paper or a wire brush to get rid of corrosion or paint.

Look for cracks and loose eyebolts. If you find damage, report it.

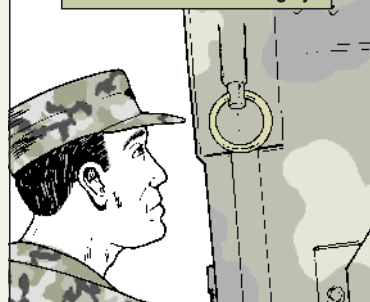
Use solvent to remove dirt and grease



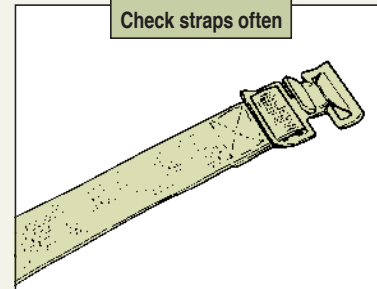
Lifting Eyes

Always inspect the lifting eyes before hoisting a LOS or RAU shelter.

Check condition of lifting eye



Check straps often



Tiedown Straps

When it's time to move out, tie down antennas, antenna cables, ground rods and camouflage netting with the tiedown straps inside the shelter. Your operator's TM shows you how. Gear that's stored or tied down securely stands a better chance of finishing the trip in one piece and not doing damage to the equipment around it.

Check the tiedown straps regularly. If the webbing is frayed or the buckles are bent, replace the strap.

Commo ...

Tie One On

No, we don't mean booze.

We mean the electrical tiedown straps you can use to keep wires and wiring harnesses out of harm's way.

Each NSN brings 100 straps:

NSN 5975-00-	Length (inches)
727-5153	2.5
074-2072	6.3
570-9598	11.5
156-3253	13.3

Cablegram



ATTENTION MSE OPERATOR-MAINTAINERS STOP FINDING THE RIGHT CABLES AND THEIR NSNs FOR YOUR RT-1539 IN DIFFERENT VEHICLE AND STAND-ALONE CONFIGURATIONS CAN BE TOUGH STOP SUGGEST YOU POST THIS LIST IN YOUR SHOP STOP IF YOU DO STOP LACK OF CABLES WON'T BRING YOUR RT-1539 OPERATION TO A STOP.

HVA-9 to antenna	
Vehicle	NSN
M1025	5995-01-264-1275
M577A2	5995-01-264-1276
M998: 4 door	5995-01-263-5326
M998: 2 door	6150-01-264-6709
Stand-alone kit	5995-01-269-0096

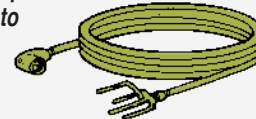
HVA-9 to KY-68	
Vehicle	NSN
M1025	6150-01-264-6705
M577A2	6150-01-264-6712
M998: 4 door	5995-01-293-0740
M998: 2 door	5995-01-293-0740
Stand-alone kit	5995-01-269-0097

RT-1539 antenna cable to HVA-9	
Vehicle	NSN
M1025	5995-01-263-5320
M577A2	5995-01-263-5327
M998: 4 door	5995-01-263-5325
M998: 2 door	5995-01-263-5322
Stand-alone kit	5995-01-269-0102

RT-1539 telephone cable to HVA-9	
Vehicle	NSN
M1025	5995-01-264-6707
M577A2	5995-01-264-6707
M998: 4 door	5995-01-264-6703
M998: 2 door	5995-01-264-6703
Stand-alone kit	5995-01-269-0098

RT-1539 to remote power switch	
Vehicle	NSN
M1025	5995-01-264-1269
M577A2	5995-01-263-9761
M998: 4 door	5995-01-293-0736
M998: 2 door	5995-01-264-1270
Stand-alone kit	5995-01-269-0091

Remote power switch to power source



Vehicle	NSN
M1025	5995-01-264-6708
M577A2	6150-01-264-6713
M998: 4 door	5995-01-264-3073
M998: 2 door	5995-01-264-3073

Remote power switch to power source

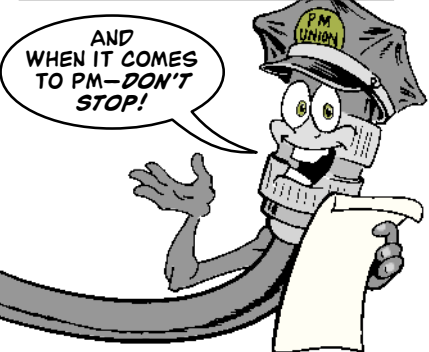
Vehicle	NSN
M1025	5995-01-264-6708
M577A2	6150-01-264-6713
M998: 4 door	5995-01-264-3073
M998: 2 door	5995-01-264-3073

Frequency fill cable	
Vehicle	NSN
All	5995-01-324-9584

115 volts AC power	
Vehicle	NSN
Stand-alone kit	5995-01-269-0092

230 volts AC power	
Vehicle	NSN
Stand-alone kit	5995-01-269-0099

28 volts DC power	
Vehicle	NSN
Stand-alone kit	5995-01-269-0093



AND WHEN IT COMES TO PM-DON'T STOP!

PP-8479/ASM(V)1 Power Distribution Box

The PP-8479/ASM(V)1 power distribution box, NSN 6110-01-463-4082, can reduce the number of generators needed to power your vans and shelters. It can also help eliminate the damage caused by wetstacking. It works with a 60-KW generator and provides safe distribution for 100-amp, 60-amp and 20-amp power. For more info on the PP-8479/ASM(V)1, contact CECOM, DSN 992-5549, (732) 532-5549 or e-mail:

shedlock@mail1.monmouth.army.mil

Condemned Items Have No Future

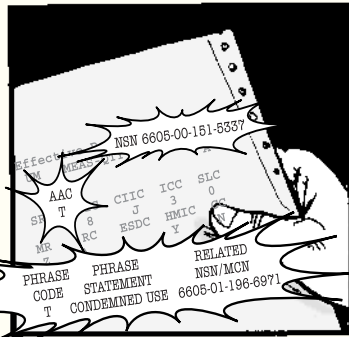
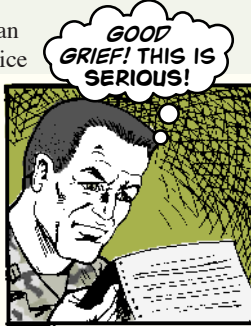
A red light should flash in your head when you find an item in the FED LOG-AMDF with an acquisition advice code (AAC) of 'T' and a phrase code (PC) of 'T'.

AAC T and PC T are used together only to identify condemned items and their replacements. You are not authorized to use such items nor should you stock, store, issue or requisition them. In fact, you must **immediately** dispose of all on-hand or in-use stock. Contact the item manager to make sure you know how to dispose of the item(s) correctly. By the time the FED LOG-AMDF shows an item as condemned, your unit should have already been told this and given disposal instructions by the item manager.

But, there are times when safety-of-use and maintenance advisory messages fall into a black hole. When that happens, a unit may discover an item is condemned only when they check it out in the FED LOG-AMDF. Not to worry, though, because the FED LOG-AMDF becomes your authority to dispose of your on-hand stock.

If the condemned item is mission-essential, see if the FED LOG-AMDF has a replacement listed and order it ASAP. Otherwise, contact the item manager for a replacement.

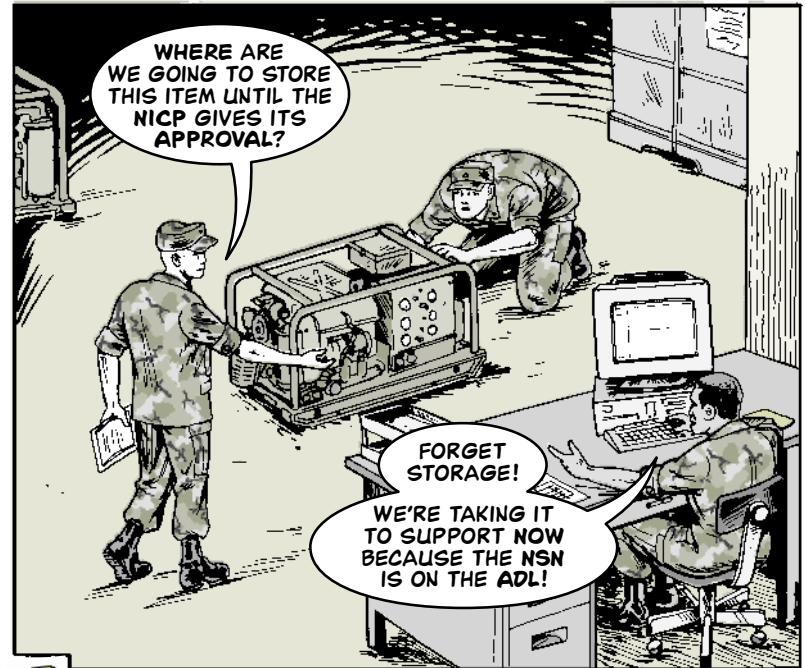
Under no circumstances should you use the condemned item until the replacement is received. Protect your unit, its soldiers and yourself by immediately removing condemned items from use!



...THIS ITEM IS CONDEMNED!



ADL SPEEDS DISPOSAL



Do you have some equipment you want to dispose of right now without waiting for the national inventory control point (NICP) to give its approval?

If so, check out the latest automatic disposal list (ADL). It lists every item that DA has approved for turn-in to DRMO without the need for NICP approval.

The ADL is updated in April and October and posted on the Internet at:

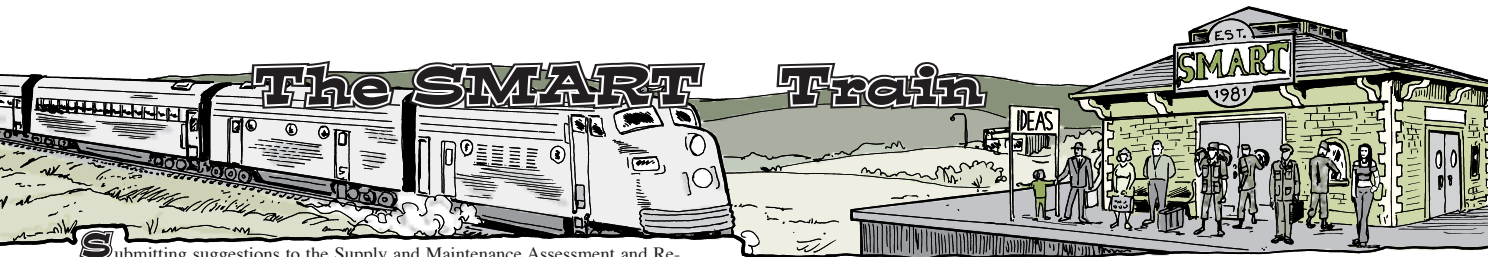
<http://www.hqda.army.mil/logweb/directorates/sm/automatic.htm>

Once there, read the current HQDA message on the ADL. When you get to the bottom of the message, click on Automatic chart.

When you get to the next screen, click on latest ADL update and the current ADL list will be displayed.

Keep in mind that unit-level supply must turn in ADL items to its supply support activity (SSA). Only the SSA can deal directly with the DRMO.

The ADL takes precedence over all sources except HQDA messages. You should report conflicts to HQDA at DSN 224-3227, (703) 614-3227, or by e-mail: bruce.resnak@hqda.army.mil



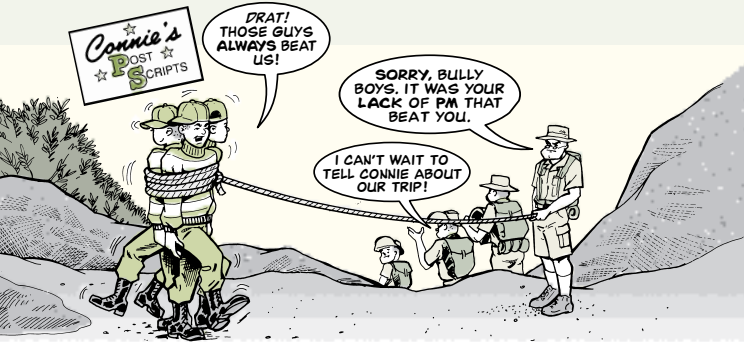
Submitting suggestions to the Supply and Maintenance Assessment and Review Team (SMART) is smart. Hop aboard the SMART train and your idea might just earn you some money—and the Army’s thanks. Here are some recent submitters, their suggestions and the recommended award.

Name	Suggestion	Recommended Award
MSG Kelly Fuller Ft Snelling, MN	Use End Item Codes to identify driver qualifications in ULLS-G	\$100
Joseph Price Columbus, GA	Repair M14 aiming post in the field	\$250
SGT Andy Roby Johnston, IA	Use panel cover to protect switches on the 3K-GPH ROWPU's chemical feed pump	\$250
Peter Kohler Germany	Add tee tube to M1A1 azimuth assembly to stop chafing between azimuth servo and hose assembly	\$175
CW3 Jeffry Reinke Ft Sill, OK	Modernization of shop equipment	\$250
SFC Michael Peoples Ft Bragg, NC	Eliminate FMTV troop seat retention belt	\$250
Steven Kilde Schofield Bks, HI	Eliminate FMTV water pump gas and seal kit, NSN 5330-01-361-1486	\$250
SGT Chris Dietz Bismarck, ND	Protect SEE's air brake systems antifreeze bottle	\$300
SGT Chris Dietz Bismarck, ND	Fabricate platform support railing on M920 truck	\$650
SFC Eric Sherry Ft McCoy, WI	Fabricate 200-amp generator tester for M113 FOV	\$1,000
SFC James Williams Ft Irwin, CA	Replace oil filter assembly with spin-on type for M551/M113	\$250

Name	Suggestion	Recommended Award
S5G George Anderson Wheeler AAF, HI	Add stabilator assembly for H-60-series helicopters to supply system	\$1,000
James Ambort Ft McCoy, WI	Replace rubber boot, not whole transmission disconnect cylinder, on 6K forklift	\$250
SFC (P) David Svec Ft Bragg, NC	Replace plastic shipping plugs with aluminum ones on M1084 FMTV	\$500
CPT B. Formy-Duval Ft Wainwright, AK	Replace SUSV return fuel line with arctic grade hose	\$400
SPC Paul Cooper Ft Bragg, NC	Install rescue hatch seal on CH-47 helicopter	\$100
SGT James Bisner Ft Bragg, NC	Add a protective cover for the IR transport hose on M56 smoke generator	\$100
Emory Cooke Ft Stewart, GA	Add weekly muzzle boresight device check to M1 series tank PMCS	\$250
Brian Miller Johnston, IA	Allow units to repair/replace AN/PVS-7B light interference filter	\$500
SPC Greg Giglio PFC Jeffrey Ray Ft Campbell, KY	Modify CH-47D intercom communications system	\$2,500
S5G Lawrence Covian Ft Gordon, GA	Allow field shop replacement of AN/PVS-7B retaining ring	\$500

Submit your award-winning ideas to:
 Department of the Army
 Project SMART/TIPS
 Dir Cbt Devs for Cbt Svc Spt
 3901 A Avenue, Suite 220
 Ft Lee, VA 23801-1809

E-mail: SMART@lee.army.mil or submit your idea at their web site:
www.cascom.army.mil/multi/project_smart
 For info, call DSN 687-2406, (804) 734-2406.



DoD Web Site for MSDS

Army users can now view and print Material Safety Data Sheets (MSDS) on the Internet. The same info available on the quarterly Hazardous Materials Information System CD-ROMs is now available by clicking on:

<http://www.dliss.dla.mil/hmis/>

HMMWV Hot Starts

If you have a HMMWV that will not restart after the engine gets hot, eyeball the serial number of the fuel injection pump. Some pre-1994 GM 6.2L and 6.5L fuel injection pumps have had hot engine restart problems. Pumps with serial numbers under the break number shown below should be replaced by your support unit. Report all such pumps to support so they can replace them with a new fuel injection pump that has an improved hydraulic head and rotor assembly.

Pump part number	Serial Number Break
DB2829-4523	7539307
DB2829-4879	8064583
DB2831-5149	7768648
DB2831-5079	7768648

HMMWV Seatbelt MWO

The only way you can get 3-point seatbelts installed correctly in your HMMWV is by having your support apply MWO 9-2320-280-35-2. You cannot order all the parts needed from the supply system. Only your installation MWO coordinator can do that. If you have installed your own 3-point seatbelts, your vehicle is unsafe. Remove the belts and contact your MWO coordinator to have the seatbelts installed correctly. See TACOM Maintenance Advisory Message (MAM) 99-004 for the details. Note that the correct kit NSN for the front seats of non-armored HMMWVs is 2540-01-387-4018, not NSN 2540-01-387-5682.

SEE Hydraulic Filter

NSN 4330-01-273-2833 gets the small emplacement excavator's hydraulic filter that's shown as Item 20 in Fig 317 of TM 5-2420-224-24P. The NSN shown in the TM gets the wrong filter.

MLRS Charging

Page 39 in PS 570 (May 00) steered you wrong on charging the MLRS launcher/loader module (LLM) batteries. To charge the batteries, run the engine at 1,200 to 1,400 rpm with the interconnect switch—**not** the fire control panel—on.

Right Chains for M35A3 Tires

The tire chains in TM 9-2320-386-10's additional authorization list (AAL), NSN 2540-00-933-9022, will not fit the M35A3 2 1/2-ton truck. The right chains are PN S05SV, CAGE 4N506, available only from the vendor, PEWAG Austria GmbH. In Europe, call 43 316 6070, Ext 246, fax 43 316 6070 100, or e-mail:

Koe@pewag.com

In CONUS, call (800) 526-3924 or (630) 323-4342, fax (630) 323-2292 or e-mail:

peterb@pewagchain.com

Also, you need one pair only, for the intermediate axle. The AAL is wrong in requiring three pairs. The TM is scheduled to be changed.

POL User's Guide

Need info on the storage, use and disposal of Army petroleum, oils and lubricants (POL)? A booklet with that, plus a list of the hazardous or toxic components of POL and hotline numbers for info on state and local restrictions, is available from:

US Army TACOM-TARDEC
ATTN: AMSTA-TR-D210
Warren, MI 48397-5000

Call DSN 786-4222 or (810) 574-4222. Or e-mail:

dash@tacom.army.mil

Mortar Repair Kits

Armorers, you should be getting your mortars back from support quicker, thanks to new parts kits. The kits contain all the parts that are replaced during semiannual maintenance. DS orders the M24 mortar kit with NSN 1015-01-452-1191, the M252 kit with NSN 1015-01-451-5789, and the M120/121 kit with NSN 1015-01-452-9634.

Vehicle Glass Sealer

NSN 8030-00-057-4109 gets a 5-oz tube of glass sealer. This clear, fast-drying liquid seals cracks and small openings in windows, windshields and taillights. Appendix A of CTA 50-970 is your ordering authority.

SEE Backup Alarm

NSN 6350-01-210-8149 gets the backup alarm for the small emplacement excavator. The NSN shown for Item 5 in Fig 77 of TM 5-2420-224-24P is no longer available.

SDU-5E Strobe Battery

The BA-1574 mercury battery, NSN 6135-00-073-8939, for your SDU-5E strobe light is no longer available, even though the FED LOG AMDF says it is. Power your strobe light instead with a BA-5374 lithium battery, NSN 6135-01-455-9646.

M1052A2 Chain Assembly

NSN 4010-01-447-0753 gets a chain assembly with hook for the 1 1/2-ton trailer. This assembly replaces Items 5, 6 and 7 in Fig 24 of TM 9-2330-213-14&P.

Send Us Your Stories!

Can you remember a time when PS Magazine "saved your bacon" with a timely article or by answering a maintenance-related question? If so, we want to hear your story. The best ones will be reprinted in our 50th anniversary issue next June. Send your story to:

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ATTN: AMXLS-LP, Bldg 5307
Redstone Arsenal, AL 35898-7466

Or e-mail it to:

psmag@logsa.army.mil

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