Magazine

Roll-up of Articles
October 2021

General and Special Topics

I Own This: September 2021 Nominees

/ Published Oct. 6, 2021

PS Magazine's ***I Own This*** campaign is designed to recognize Warfighters of all services who exemplify the highest standards of care for their assigned vehicles and equipment and contribute in meaningful ways to their unit's overall maintenance and supply posture. In short, they live and breathe readiness.

This month, we had two (2) Warfighters nominated for this program. Both are deserving of this recognition so both were selected to get the spotlight placed on them. This month, these individuals are CW5 Benjamin S. Burnett, US Army, and SSgt Andrew G. French, US Air Force (our first USAF nominee!).

SPOTLIGHT PROFILES

CW5 Benjamin S. Burnett

Army / National Guard

FMS Regional Manager (NorCal)

Joint Force Headquarters, California Army National Guard, Sacramento CA
Nominated by: SFC Steven Apodaca

How did you come to know/observe the nominee's actions? After assisting various units with maintenance and command maintenance discipline program (CMDP) training, Chief Burnett helped streamline their processes by creating an application (app) that provides information to operators and maintainers that assists them with drivers training, work orders, reports, -10 TM's for PMCS and much more.

Why does this individual deserve recognition? Chief Burnett spent numerous hours of his personal time to develop an app designed to train, assist and guide Soldiers in the field to achieve Army standards. His product has helped make the CMDP easier to manage.

Additional Comments: His product is called "Mobile Soldier" and has helped Cal Guard tremendously.

SSgt Andrew G. French

Air Force/Active

Flying Crew Chief, HH-60G Pave Hawk

718th Aircraft Maintenance Squadron, Kadena Air Force Base, Japan

Nominated by: TSgt Daniel Morgan

How did you come to know/observe the nominee's actions? SSgt French continuously shows dedication to his aircraft. If anyone in our unit says the term "Pride of the Fleet," they are undoubtedly referencing SSgt French's aircraft. I've never seen someone as dedicated to ensuring that his aircraft is fully mission capable (FMC). His aircraft has even garnered an unprecedented "Black Letter" exceptional release (when an aircraft is flown with zero discrepancies)!

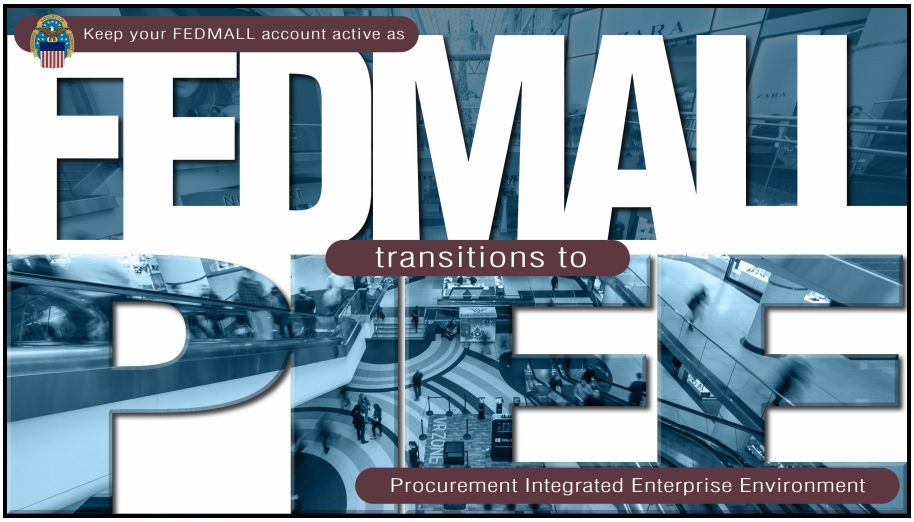
Additional Comments: His dedication has been recognized by unit leadership by appointing him as the Dedicated Crew Chief (DCC) Program Manager, an initiative to

have him motivate other DCC's to also demonstrate dedication to their aircraft and mission.

To learn more about nominating a Warfighter for this recognition, read the article HERE.

FedMall—Oct 12 Deadline to Keep Accounts Active

/ Published Oct. 7, 2021



There's an Oct 12 deadline to ensure folks keep their FedMall accounts active. The FedMall website will be moving to a new platform and DLA needs to ensure users' log-on info is up-to-date and activated before this migration (users need to log in every 90 days to keep accounts active, anyway). After Oct 12, it'll essentially be "back to square one" to have their account approved and activated on the new platform.

Read more about this transition and the impact of missing the deadline here:

https://www.dla.mil/AboutDLA/News/NewsArticleView/Article/2802067/fedmall-users-must-have-active-status-by-oct-12-or-lose-account-access/.

Leader Interview: Mr. Cinader - AMCOM

/ Published Oct. 8, 2021

Photo on right by Charles Rosemond

MSG Half-Mast recently traveled just down the road at Redstone Arsenal to speak with Mr. Jeffrey Cinader, who oversees the Army Aviation and Missile Command's (AMCOM's) Corrosion Program Office and Center of Excellence, on the topic of corrosion.

Mr. Cinader's current assignment is the Chief, Command Assessment and Continuous Improvement Division, which encompasses the AMCOM Policy Branch, Command Assessment and Analysis Branch, the Organizational Inspection Program, and the Corrosion Program Office. Previous assignments include: Chief, CONUS-West Branch G33; Division Chief, Logistics Assistance Division, Readiness Directorate; Branch Chief for the Cargo/Utility Branch in the Readiness Directorate; Apache Product Management Office; and multiple positions in the Logistics Assistance Program. Mr. Cinader served in active Army, Army National Guard and Army Reserve aviation units during his military career. He is an Acquisition Corps Member and certified in Life-Cycle Logistics

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MSG Half-Mast: I understand there's a new AMCOM corrosion program office. What makes the office different from before?

Mr. Cinader: There really isn't a new AMCOM corrosion office. We just initiated a new website that is being continuously updated to ease accessibility to the hosted corrosion data and help streamline the process to request assistance for corrosion-related matters.

The negative impact of corrosion to aviation and missile weapons systems can be extensive, as well as expensive, and warrants special attention. Corrosion results in parts needing to be replaced earlier than planned. So, too, does improperly performed non-destructive testing (NDT), which can result in false indicators. That's why we have a corrosion program office and invest quite a bit to training, education and inspections.

The AMCOM corrosion prevention and control effort, which the Corrosion Program Office (CPO) oversees, is a mostly-free service to units (if they attend the Redstone Corrosion Course from elsewhere, they bear the TDY and per diem costs). The CPO provides corrosion monitor classes (virtual and onsite), NDT, corrosion demonstrations, equipment and facility surveys, care of supplies in storage (COSIS) instruction and guidance for aviation and missile organizations. The surveys provide combat aviation brigade and Air Defense Artillery commanders with a corrosion and COSIS assessment of their platforms and facilities. While the CPO does not perform COSIS operations, it does provide the commander with guidance on shelf-life items and inspection of long-life reusable containers, among others.

It's highly recommend that units, (e.g. combat aviation brigades, patriot battalions or brigades) request support from the CPO to educate maintainers and leaders on corrosion and the impact it has to operations.

MSG Half-Mast: What are some of the major challenges the Army faces when it comes to corrosion?

Mr. Cinader: I'd like to focus on one challenge the Army faces with its aviation and missile platforms: maintainers not documenting all occurrences of corrosion properly on forms and records. This data is extremely important to track corrosion's impact, to conduct trend analysis and to formulate mitigation strategies. Supervisors and leaders must enforce the Army standards, e.g. TM 1-1500-344-23, TM 1-1500-204-23 series or TB 43-0213 (see end of article for more information on these references) regarding corrosion prevention and control, which will assist keeping their air, missile and ground support equipment functional.

MSG Half-Mast: Can you explain the three lines of effort AMCOM is taking to

effectively manage corrosion, top to bottom, and how they impact Soldiers?

Mr. Cinader: There are three LOEs—strategic, operational, and tactical. They provide the framework for AMCOM's Corrosion Prevention Strategy 2021-2026. The aim of the strategy is to achieve measurable results each year and improve on these results year-over-year.

The strategic LOE explores adopting and advancing commercial standards to Army corrosion efforts, as well as making necessary policy and regulation changes at the Department of the Army and Office of the Secretary of Defense levels designed to enhance corrosion prevention and control efforts. Additionally, this LOE charters Army aviation and missile leaders to undertake necessary inspections, maintenance and oversight to optimize weapons systems readiness.

The operational LOE consists of AMCOM's Corrosion Program Office working with product managers (PMs), the Army Corrosion Executive, other life-cycle management commands (LCMCs), and the Army G-4 to promote and support corrosion efforts, to include NDT. These efforts also include preparing for weapon systems transitioning into sustainment, such as unmanned aerial systems/unmanned aerial vehicles (UASs/UAVs).

The tactical LOE includes AMCOM teams specializing in corrosion, NDT and coatings. These teams provide live, hands-on demonstrations and training, mentorship and field support to Soldiers. Ultimately, it's Soldiers that have the most important role in preventing and controlling corrosion. Everything at the strategic, operational and tactical levels are designed to provide Soldiers a framework that will enable them to be successful at identifying the causes of corrosion, performing preventive measures to control it and mitigating it if and when it occurs.

MSG Half-Mast: Are units using the new website and taking advantage of the opportunities it offers?

Mr. Cinader: Since moving and "converting" the corrosion website to a SharePoint version, users have better access to corrosion information that can assist both aviators and maintainers in need of corrosion assistance. Not only will they find the latest references, updated consumables list, plus a request form for on-site visits, they'll also find templates for creating their own corrosion prevention program. The AMCOM CPO's new site is: **https://amcom.aep.army.mil/G3/cr/SitePages/CPC_Home.aspx** (you'll need your CAC to access). On this SharePoint site, maintainers will find a group email addresses and phone numbers to contact the CPO office.

MSG Half-Mast: Do you have any final thoughts you'd like to send to our readers?

Mr. Cinader: Limiting corrosion's impact on AMCOM-supported equipment is vital to ensuring aviation and missile systems can perform and deliver results in support of the Army's mission. The same can be said for all Army equipment and other Life Cycle Management Commands have similar efforts in effect. Soldiers, civilians, and contractors must continue to work together to improve and resolve corrosion.

Also, please note that IAW TC 3-04.71, *Commander's Aviation Maintenance Training Program*, (Dec 20), units must ensure that master repairer-ML (Maintenance Level) 4 and technical inspectors are corrosion monitor certified. The AMCOM Corrosion Office can assist units with meeting this requirement. To learn more about corrosion monitor certification please contact this office for assistance through our Website or contact us directly.

References cited by Mr. Cinader, all of which can be accessed at **https://armypubs.army.mil/**:

TM 1-1500-344-23 series, *Cleaning and Corrosion Control* (Vol 1-4)
TM 1-1500-204-23 series, *Aviation Unit Maintenance (AVUM) and Aviation Intermediate Maintenance (AVIM) Manual for General Aircraft Maintenance* (Vol 1-11)
TB 43-0213, *Corrosion Prevention and Control (CPC) for Army Ground Equipment*, (Mar 19)

PS MAG 70th Anniversary: Tell Us Your PS Magazine Story

/ Published Oct. 15, 2021

Photo by Timothy Hoyle

Dear *PS Magazine* Readers,

This past June, *PS Magazine* began celebrating 70 years of bringing maintenance, logistics and readiness information to Warfighters—and the civilians who support them—as well as to non-military fans the world over.

Seven decades – that's quite a milestone! And we want to ensure we commemorate them right.

YOU are the reason we exist, so it's only fitting that you're involved in the year-long anniversary. We're inviting you to submit your "*PS Magazine* story" to appear on our 70th Anniversary Blog and, in select instances, on our Facebook and Twitter feeds.

Your *PS Magazine* story can center on any of the following examples, but you're certainly not limited to these:

- The first time you encountered or read *PS Magazine*.
- Your favorite issue or article.
- Your favorite PS character.
- The time *PS Magazine* proved most helpful to you.
- An idea you submitted to the magazine and then saw it get published.

We're also accepting pictures to accompany your story, such as a pic of you holding your favorite issue or using your smart device to read an online article. Just make sure your pic or pics are OPSEC-compliant.

For those who are adept at shooting videos, we're accepting short (one minute or less) videos of you telling your *PS Magazine* story.

Make sure they're in focus and not jittery, not overly dark or too bright, that the sound is clear and that there are no security violations. If you have any doubt about them being OPSEC-compliant or not, confer with your unit public affairs representative or command public affairs office.

If you have a *PS Magazine* story to tell, simply click on the link below. The subject line has already been completed for you. All you have to do is write up your story and place it in the body of the email or attach it as a Word document. If you're outside the DoD network, your best bet is to place it in the body of the email; that way your attachment won't get stripped out. If your accompanying photo is lost in transmission, we'll contact you with an alternative way to send it.

usarmy.redstone.asc.mbx.psmag@mail.mil

So get your stories, pictures or videos to us as soon as they're ready.

We can't wait to read and share them.

Read the 70th Anniversary Blog by clicking on the link in the menu or HERE

MSG Half-Mast and the PS Magazine Staff

Aviation

Aviation: Help PM the TM

/ Published Oct. 14, 2021

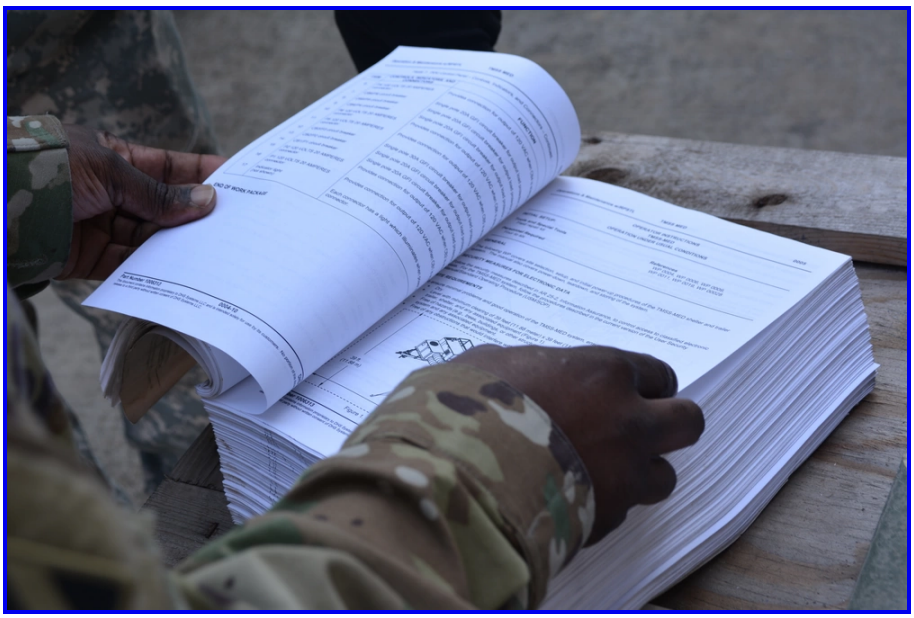


Photo by Sgt. 1st Class Stephanie Widemond

The Army provides maintainers and mechanics with a lot of equipment —systems, subsystems and components—that requires a lot of preventive maintenance (PM).

That equipment comes with TMs or IETMs that tell you how to use and maintain the equipment properly. But these pubs themselves often need PM, and you supply it with DA Form 2028, *Recommended Changes to Publications and Blank Forms*.

Use DA Form 2028 if you find an error in the tech manual that you're using, or if you want to submit a request to change a procedure or have a suggested improvement. Once received at AMCOM, equipment specialists, engineers, and other specialists may assist in reviewing your 2028 submission.

For AMCOM-managed equipment, you can submit a DA Form 2028 from within your interactive authoring and display system (IADS) software program. After selecting the view tab, select DA Form 2028s and submit it electronically to AMCOM (you will need

to be connected to the internet for this). IADS also keeps a record of all 2028 submissions and their status. You can download the software at:

https://iads.redstone.army.mil

If you don't have IADS software loaded on your computer, use the AMCOM website's automated DA Form 2028 at:

https://amcom2028.redstone.army.mil/Default.aspx

You can also submit 2028s by email, fax or by snail mail using the information below:

Email:
2028@redstone.army.mil

Fax:
(256) 842-6546

Letter:
Commander, US Army Aviation and Missile Command
ATTN: AMAM-MAL-AS
Redstone Arsenal, AL 35898-5000

AMCOM will provide a case number to each DA Form 2028 originator within five (5) workdays after receipt. Normally, replies citing the action taken or the reason for non-adoption will be returned to the originator within 45 workdays. In some cases, a return reply might take longer. Some technical change requests require an approval from the Systems Readiness Directorate and the Directorate of Evaluation and Standards.

Make a note that you'll have to establish a user account to access the AMCOM 2028 Online and AMCOM Draft 2028 websites. The website is CAC-enabled.

The AMCOM 2028 Online is where maintainers or anyone with CAC access can submit DA Form 2028s against active fielded manuals. AMCOM Draft 2028 is the location someone can submit 2028s against draft publications.

Changes won't happen without your input. So take the time that's needed to gather the facts about what needs updating and complete the 2028. Remember, a picture is worth a thousand words. It's very helpful to attach or send pictures, documents, and PDF work packs noted with the change request. All information you provide helps lead to a quicker decision. And it's not just you that benefits. Your recommended changes could positively impact the entire Army.

All Aircraft: Aircraft Ground Mishaps

/ Published Oct. 20, 2021

Photo by 1st Sgt. Douglas McNeil

When working on your aircraft while on the flight line, it's important to avoid any type of aircraft ground mishaps.

An aircraft ground mishap is where there's no intent for flight, but an incident or accident results in damage to an aircraft or harm to a Soldier. For example, if a maintainer slips and falls off an aircraft, that is considered an aircraft ground mishap.

To learn more about aircraft ground mishaps and how they're different from non-aircraft ground mishaps, download and read the *Flightfax* 5 PDF article below. There's a five-question quiz, too, to test your knowledge.

Click on image above to open PDF

All Aircraft: Be Prepared for Cold Weather

/ Published Oct. 25, 2021

When winter weather extremes hit you and your aircraft with frigid temps, snow, ice and wind, even preventive maintenance (PM) defensive measures may be too little, too late. That's why it's important to plan, prepare and train now for cold-weather operations using your aircraft-specific TMs.

For general cold weather information, check out Chapter 10 of TM 1-1500-204-23-1 (Jul 92, w/Ch 11, Dec 18), *General Aircraft Maintenance*. Because PM in sub-zero temperatures is critical to readiness and keeping aircraft flying, ensure your unit's SOP for cold-weather operations is always current.

Aircraft, weapons systems, aviation ground support equipment (AGSE), aviation life support equipment (ALSE), and cold weather clothing all need preventive maintenance services (PMS) before the deep freeze hits.

When the deep freeze hits, moving aircraft inside the hangar for maintenance is best. If this is not practical, a shelter will work for equipment that's out in the cold for

extended periods of time.

In bitter cold, make sure you work in shifts and use the buddy system. Long periods outside can affect your body. Fingers are especially vulnerable to frostbite.

Wear gloves in cold

Break the maintenance up into small periods with one person working while another warms up in a hangar or shelter. If you use a temporary shelter made out of canvas or a parachute, use an authorized heater to warm it. However, make sure you follow all safety regulations to prevent a fire or carbon monoxide poisoning.

Wintry weather can affect fuel, seals, tires, batteries and airframes. Here are some valuable tips that will keep your aircraft operational when things turn really cold.

Tip 1: Cold Fuel

Ice can form in fuel lines from condensation. Limit that problem by keeping your aircraft topped off.

Even after topping off, there will be a gap between the top of the tank and the fuel. That’s where air condenses and water mixes with your fuel. So when you take a fuel sample each day, drain enough fuel to get rid of all the water. Always drain from the lowest point of the fuel cell. Water is heavier than fuel and will accumulate in the bottom of the fuel cell.

Refuel outside before moving inside

If refueling is done outside in freezing temperatures, always check the aircraft's fuel level before moving it inside. Fuel expands in warmer temperatures, so taking a full aircraft inside could give you a fuel spill to clean up. When single-port refueling, make sure the port shuts off at appropriate levels.

Be extremely careful about static electricity during refueling. Static electricity increases when the temperature and humidity drop.

When dealing with cold fuel and aircraft, keep these grounding pointers in mind:

1. Ground aircraft to the ground.

2. Ground aircraft to the fuel tanker. Make sure the fuel tanker is grounded to the ground too.

3. Ground aircraft to fuel nozzle before removing the cap and make sure all doors are closed. So to clarify, ground everything before removing the fuel cap.
   If you're not using a closed-circuit nozzle, put the regular nozzle in all the way. That lessens the danger of static and reduces the chance for a fuel spill.
   It's also important to reinstall the fuel cap before removing the ground wire from an aircraft. Otherwise, sparks can shoot between the grounding cable and the aircraft. Beef up your grounding knowledge by checking out your aircraft TMs for information. Grounding information can also be found

in Army Technical Publication (ATP) 4-43, *Petroleum Supply Operations* (Aug 15).

Finally, spilling cold fuel on bare skin can lead to instant frostbite, as well as create an environmental hazard. Protect your skin by wearing gloves and being extra vigilant when handling fuel.

Tip 2: Cold Oil and Grease

Nothing is immune to cold, not even oil and grease. As the mercury dips, oil gets thicker and grease gels. Using the right oil, lube and grease minimizes those problems.

For example, when servicing a stone-cold aircraft's oil systems, never fill to the brim. That's because oil expands as it heats up and you'll be cleaning up an overflow mess. Because oil leaks are a bigger problem in the winter, regularly eyeball connections, joints and seals.

Tip 3: Cold Seals

Speaking of seals, when cold weather hits, seals contract, increasing the chances for leaks.

Even worse, moisture can seep in and around seals and freeze. Cold turns moisture into ice and ice cuts the seals. Cold makes seals brittle and subject to cracking so check them regularly to see if they need replacing. Cold can shrink seals allowing them to leak, so allow aircraft system to get to operating temperatures before moving controls. Keeping seals and cylinders clean will prolong seal life.

Tip 4: Cold Batteries

Cold can affect batteries, but unless the temperatures drop to sub-freezing levels, sealed lead-acid batteries (SLAB) or nickel-cadmium (NI-CAD) batteries should continue to do their job. However, frequent cold starts will shorten battery life.

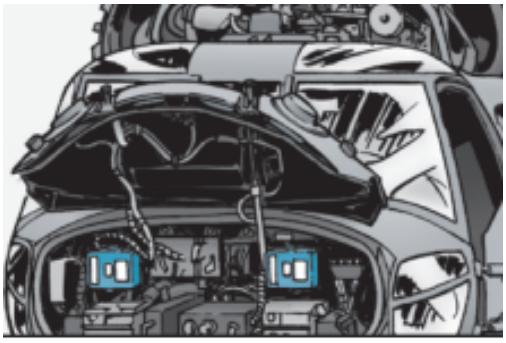
The H-60M has two SLAB batteries in the nose compartment and the UH-60A/L battery is located in the cabin behind the pilot seat. It could be either a NI-CAD or SLAB battery. Your best bet is to bring batteries inside from the cold when sub-freezing temperatures are forecasted.

Before starting your aircraft engines, turn on the searchlight, landing lights or some

other component for 30 seconds. That warms up the batteries and helps get the engine started.

Keep SLABs warm. The cold can drain their charge much faster than it does a NI-CAD battery. When bringing either SLAB or NI-CAD batteries inside, store them in separate areas. Fumes from a SLAB battery can cause a NI-CAD battery to discharge.

Always store batteries on a shelf or on top of dunnage because bare floors will drain them.



H-60M SLAB batteries work better when warmed

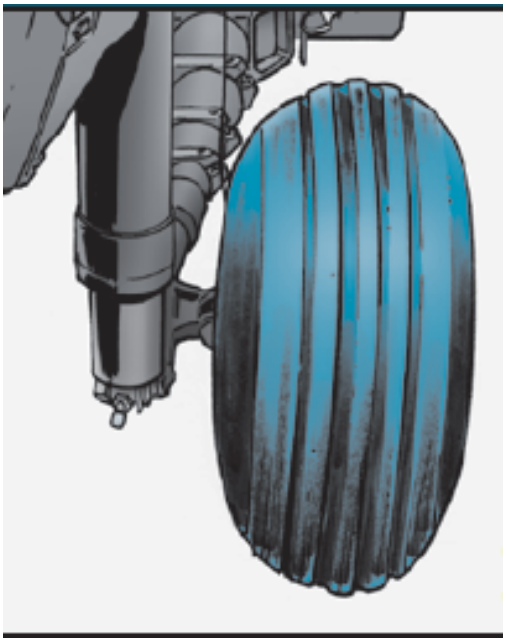
If you're using an aviation ground power unit (AGPU), the load will warm up the battery before starting the engine.

It's always best to use an AGPU for an aircraft's first start of the day. That helps prevent battery drain from the cold.

Tip 5: Cold Tires

Cold can reduce tire air pressure, so check your helicopter's tire pressure often like it says in each airframe's TM.

When tires freeze to the ground, you can use liquid deicer to break them loose. Avoid parking aircraft in wet or slushy areas. For example, if you park your aircraft on mud, the next day you may find the tires frozen in place. Whenever possible, use a platform surface of some kind under the tires to keep them off snow and ice.



Keep aircraft tires off wet ground

Tip 6: Cold Airframes

Keeping your aircraft covers and flyaway gear handy is essential in the winter. Use aircraft covers to protect every part of your aircraft.

Remove snow from aircraft…

…and make sure covers are used

If you can’t cover the entire aircraft, at least cover:

- the engine inlets.
- exhaust openings.
- pitot tubes.
- the main rotor head and tail rotor.

Never take cold weather for granted! Prepare now for the cold weather to come. Follow all guidance and precautions in the -10. And in addition, wear proper clothing when doing maintenance to keep warm so the job gets done right.

UH/HH-60: Four-Strand Cable Approved for B-E Rescue Hoist

/ Published Oct. 25, 2021

Photo by Sgt. Brian Schroeder

Maintainers and operators, if your Black Hawk has the Breeze-Eastern external rescue hoist, here's some good news. The four-strand (4-strand) rescue hoist cable is approved for use on the Breeze-Eastern rescue hoists with airworthiness release (AWR) 2292 and has been assigned, NSN 4010-01-694-9091. Refer to Appendix B for configuration and installation details.

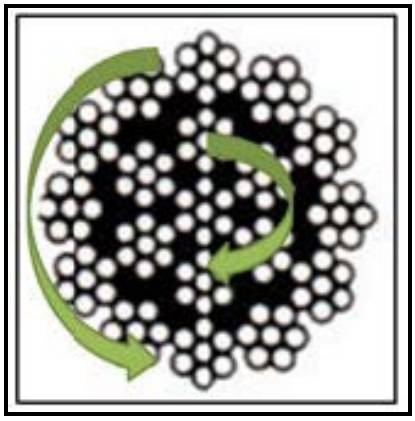
The 4-strand cable and set screw kit, PN KT-681, is an alternative for the standard 19X7 cable assembly, PN BL-10653-3, NSN: 4010-01-502-1057 and set screw, PN BL-9182. The 19X7 cable is currently used by all services on the Breeze-Eastern external and Goodrich internal hoist, and also on the Goodrich external hoist on the UH-72 Lakota. The 4-strand cable was developed primarily to address operational concerns related to cable looseness and cable bird-caging, which are conditions familiar to all hoist operators and maintainers.

The new 4-strand cable is ONLY authorized for use on the Breeze-Eastern hoist.

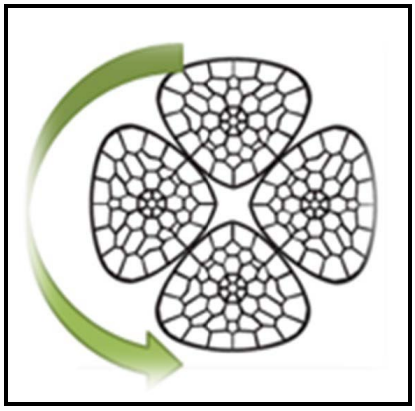
Based on Federal Aviation Administration (FAA) and European Aviation Safety Agency (EASA) recommendations, the 4-strand cable is limited to 1,500 equivalent lifts. Maintainers are instructed to follow the 4-strand cable installation procedures in the Breeze-Eastern *Flight Line Operations and Maintenance Manual*, *TD-17-003*, which supersede instructions within the hoist-specific operations and maintenance manual.

To order the 4-strand cable assembly kit, units should submit requisitions through local normal supply channels.

Four-strand cable



19X7 cable cross section



Four strand cable cross section

Contact PD MEDEVAC POCs Rom Ordonez or Johnny Eley by email at:

romulo.i.ordonez.civ@mail.mil

johnny.s.eley.civ@mail.mil

CBRN

M26 Decon: Make Mock Drills a Regular Part of Training

/ Published Oct. 20, 2021

Photo by Staff Sgt. Regina Machine

Training and operating the M26 decon system isn't always a top priority for many units. But troops need to be properly trained to operate it. Putting M26 decon system mock drills on your unit's training schedule will help Soldiers:

- Know their equipment (including BII and COEI).
- Identify set-up, disassembly and storage procedures.
- Perform Preventive Maintenance Checks and Services (PMCS).
- Regularly exercise equipment.
- Identify individual and team tasks.

For more info, check out TM 3-4230-238-10 (Jul 09 w/Ch 1, Sep 12).

M26 Decon: Train and License Operators

/ Published Oct. 25, 2021

Photo Courtesy of TACOM

Dear Editor,

Units should know that M26 decon operators must be trained and licensed to operate and maintain the equipment to prevent injury and/or damage, according to TM 3-4230-238-10 (Jul 09).

Once operators are trained, units should be sure to annotate the training on DA Form 348 and on DA Form 5984-E. And after they are licensed, it's a good practice to develop unit training plans to ensure the TM, as well as Chapter 7 of AR 600-55, *The Army Driver and Operator* (SEP19), are being followed at the operator and organizational levels. These actions will enhance unit CBRN readiness.

SGM Jennifer Langes
David Whitmire
JBLM, WA

Editor's note: *Great input, SGM Langes and Mr. Whitmire! Thanks.*

Combat Vehicles

Bradley FOV: Avoid "Wet Staking" With Proper Idling

/ Published Oct. 18, 2021

Photo by Cpl. Alisha Grezlik

Operators, running your Bradley's engine at idle for long periods of time can cause "wet staking." That's a condition caused by unburned diesel fuel passing into the exhaust system.

The most common cause of wet staking is idling the engine for too long at too low RPM, keeping the engine from reaching operating temperature. Idling the engine in cold weather is more likely to prevent the engine from reaching the proper operating temperature.

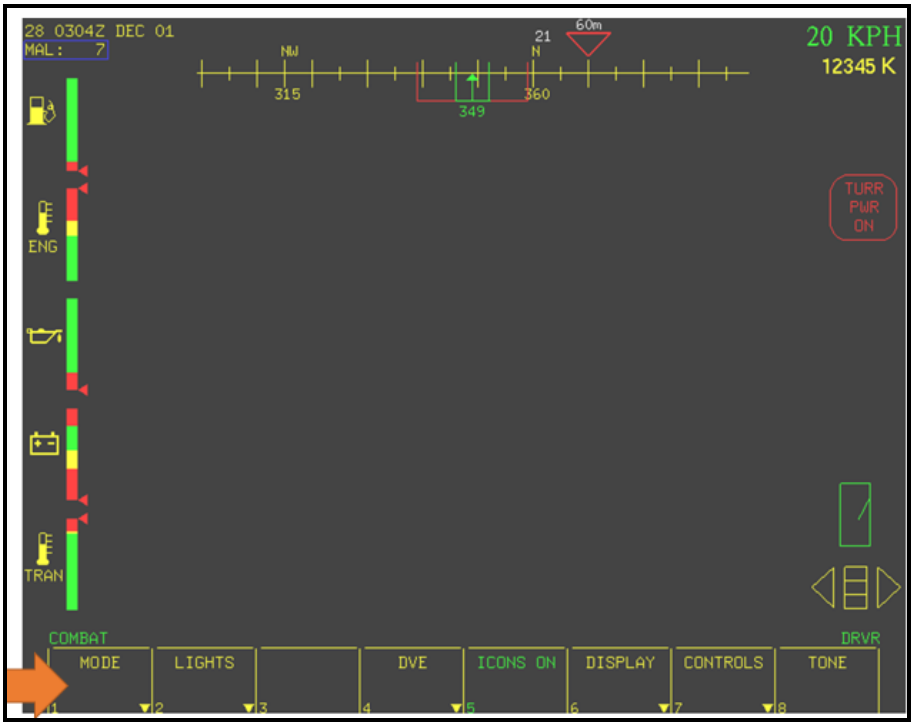
Wet staking is detectable by the presence of a black ooze around the exhaust manifold, exhaust piping and turbocharger.

An engine that has been wet staked can also suffer from another condition called crankcase dilution. Crankcase dilution is caused by fuel accumulating in the oil and

crankcase. The fuel in the oil dilutes the oil, increasing wear on engine components.

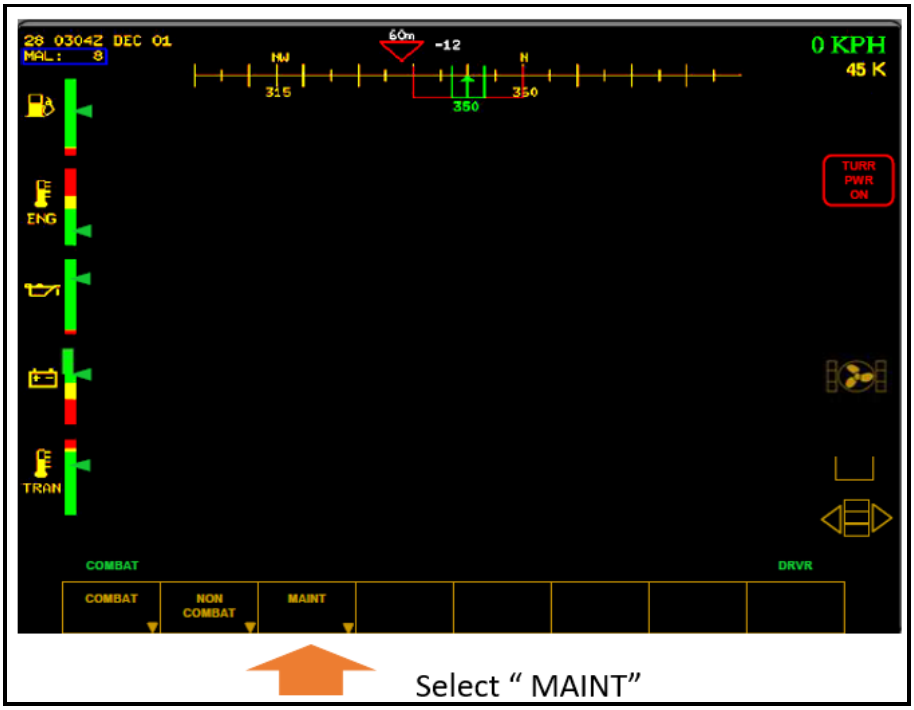
If you're idling your Bradley's engine for more than five (5) minutes, the engine speed should be 1,000 RPM. Here's how to make that happen:

- Select "Mode" in the driver's display.



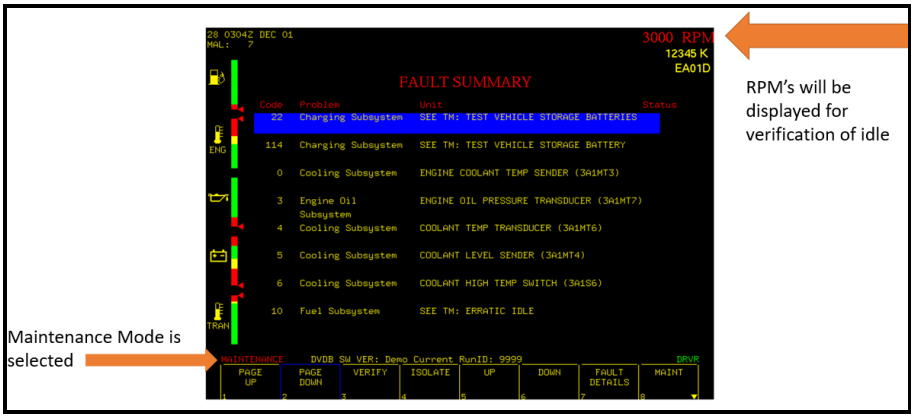
Select "Mode" in the driver's display

- You will see three modes displayed: COMBAT, NON-COMBAT and MAINT. Select MAINT to allow access to Maintenance mode.



Select MAINT mode

- The RPM will be displayed in the upper right-hand corner of the screen. Use the hand throttle to set the RPM to 1,000.



RPM will be displayed in upper right

Note to maintainers: If a Bradley engine has been wet staked, take an oil sample and submit it to the Army Oil Analysis Program (AOAP). Change the oil if the vehicle isn't enrolled in AOAP.

Maintenance Mgmt: NSNs for Motor Pool Safety Items

/ Published Oct. 20, 2021

Photo by Gertrud Zach

Keep these NSNs handy for safety items used in the motor pool.

Yellow Safety Paint

Get a 5-gal container of yellow safety paint with **NSN 8010-01-019-1776**. This water-based latex is used to paint guide marks and warning lines inside your motor pool. It's non-flammable and presents fewer health and safety hazards than the old oil-based paint. Before disposal, check with your environmental safety office for state or local regulations on latex paint waste.

Hand Sanitizer

Get a package of 24 3-oz bottles of hand sanitizer with **NSN 65018-01-535-5409**.The

foliage-green bottles are made to withstand heat and can be opened with just one hand. This sanitizer kills 99.99 percent of most common germs.

Absorbent Compound

Get a 44-lb bag of absorbent compound for soaking up oil and fuel spills with **NSN 7930-00-269-1272**. Just sprinkle the compound on the spill and sweep it up once the spill is absorbed. Dispose of the compound in a proper HAZMAT container. Table B-1 of CTA-970 is your authority for ordering the compound.

Construction

M400W Compact Skid Loader: Prevent Battery Drain Again

/ Published Oct. 18, 2021

Photo by Spc. Kevin Kim

Operators, keep these preventive maintenance pointers in mind for your M400W compact skid loaders as the season changes from warmer to cooler weather. You'll want to pass this info along to buddies in your unit.

"Click" the Door Shut

A common cause of battery drain is when the skid loader's cab door is left partially

open. Leaving the door open will cause the door's sensor to stay activated, causing the batteries to drain until there's no charge left for the next start up. When you close the door, make sure you hear a "click" before walking away.

Battery Checklist

Here are four ways to stop needless battery replacement:

- Start the skid loader weekly and run it for an hour.
- Every other week, plug a charger into the vehicle's NATO receptacle and fully charge the battery set. The **ProHD,** NSN 6130-01-500-3401, is an approved charger that comes with the SATS.
- For long-term storage, make sure you disconnect the skid loader's batteries.
- For skid loaders stored outdoors in the motor pool, use a solar charging system, like the **Solar Pulse Monitor System,** NSN 6130-01-558-5371. It simply plugs into the NATO receptacle and no modifications are needed.

924H Wheel Loader: Parts Info Update

/ Published Oct. 18, 2021

Photo by Spc. Michael Germundson

Keep these parts NSNs handy until the 924H wheel loader's TMs are updated.

Camera Cable

Need a 124-in long camera cable? Get it with **NSN 6150-01-593-5507**. The cable that currently comes with NSN 6150-01-596-3828, shown as Item 2 in Fig 164 of TM 5-3805-298-24P (Mar 13), is too short.

Rear Composite Light

When ordering the rear composite light (either for the 924H or a 120M road grader), save your unit some bucks with **NSN 6220-01-482-9850**. This light costs $93.75 and is a lot cheaper than the $313.85 light, NSN 6220-01-562-8419, that's shown as Item 12 in Fig 95 of TM 5-3805-293-24P (Feb 16) and Item 2 in Fig 54 of TM 5-3805-298-

24P (Mar 13).

Light Switch

Get a light switch with **NSN 5930-00-307-8856**. This NSN replaces the parts info shown as Item 22 in Fig 46 of TM 5-3805-298-24P. This same light switch can also be used on 966H and 924G wheel loaders, as well as the 613C scraper/water distributor.

Backhoe Loader: Transmission Oil and Cylinder Hose NSN Info

/ Published Oct. 20, 2021

Photo by Sgt. 1st Class Clinton Wood

Mechanics, keep these NSNs handy when it comes to keeping the backhoe loader mission ready at the worksite.

Transmission Oil

Plain and simple – **don't** use a substitute oil in the backhoe loader. Using substitute oil can cause component or vehicle failure!

Use **only** the oils listed in the expendable/durable items in WP 0375 of TM 2420-231-3 (Jul 13),also shown below:

For Hy-Tran Ultra Case
AKCELA MS-1209

Size	NSN 9150-

Size	NSN 9150-
1-qt container	01-614-5259
5-gal can	01-614-6424
55-gal drum	01-614-6419

For HydroDex Transmission Fluid

Size	NSN 9150-
10-qt can	00-657-4959
30-gal can	01-114-9968

Cylinder Hoses Reversed

The NSNs and part numbers for two (2) of the backhoe loader's front bucket cylinder hoses were mistakenly reversed in TM 5-2420-231-24P (Jun 13). So when ordering:

- Get Item 2 in Fig 94 with NSN 4720-01-549-0815 (PN 183660A1).
- Get Item 4 with NSN 4720-01-549-2548 (PN 183658A1).

Make a note until the TM is updated.

Commo/Electronics

Soldier Support: Grounding and Bonding Info

/ Published Oct. 7, 2021

Photo by Sgt. Jermaine Jackson

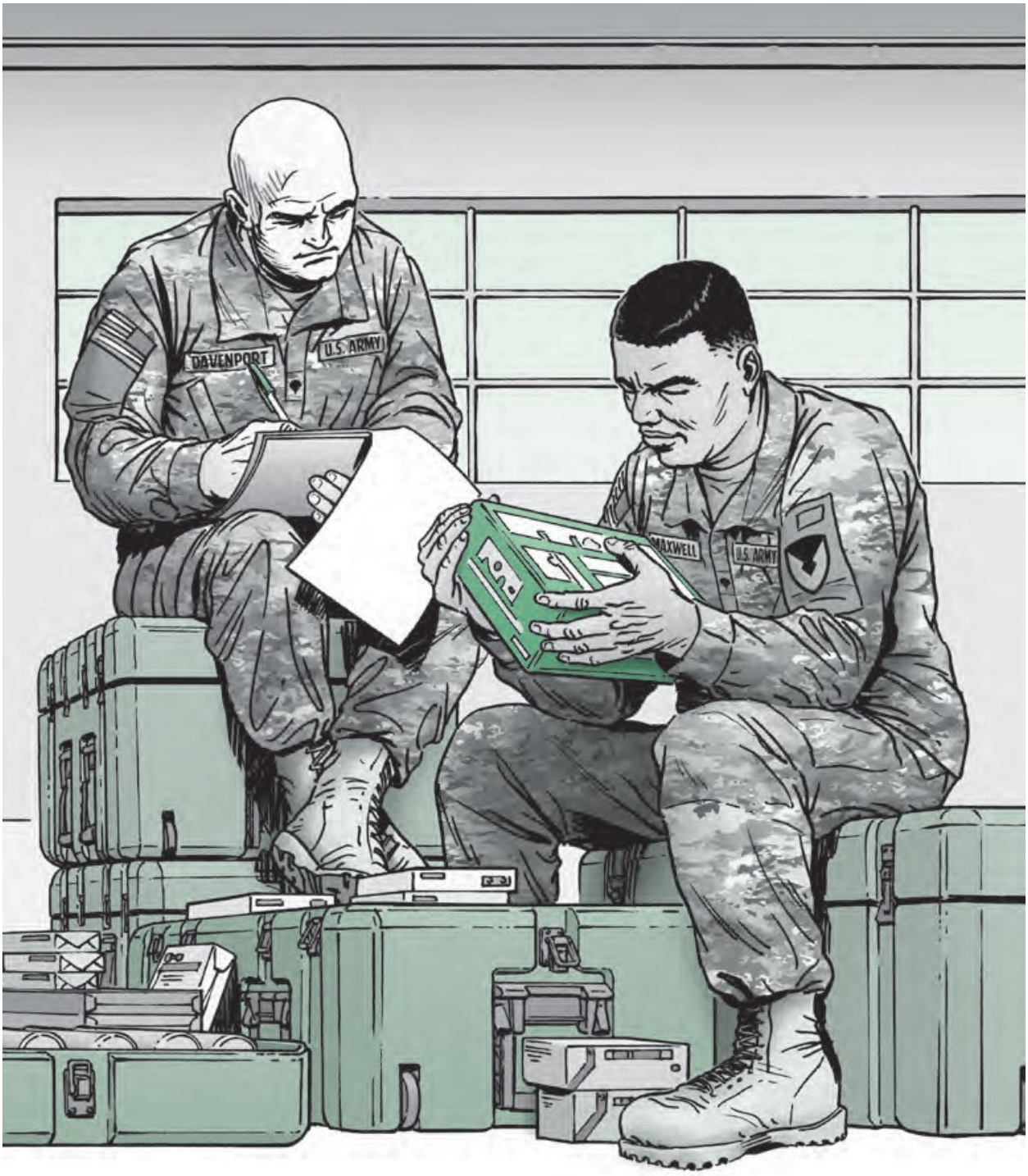
Proper grounding and bonding of generators and commo equipment isn't merely a safety step. It's a matter of life and death. For your own protection—and that of your fellow Soldiers—review CECOM Pamphlet TR 98-6, *Earth Grounding and Bonding Pamphlet* (Oct 98). Grab your CAC and download it from our milSuite site at:

https://www.milsuite.mil/book/docs/DOC-1060640

Also take a look at TC 6-02.6, *Grounding Techniques for Tactical Equipment and Systems* (Nov 17):

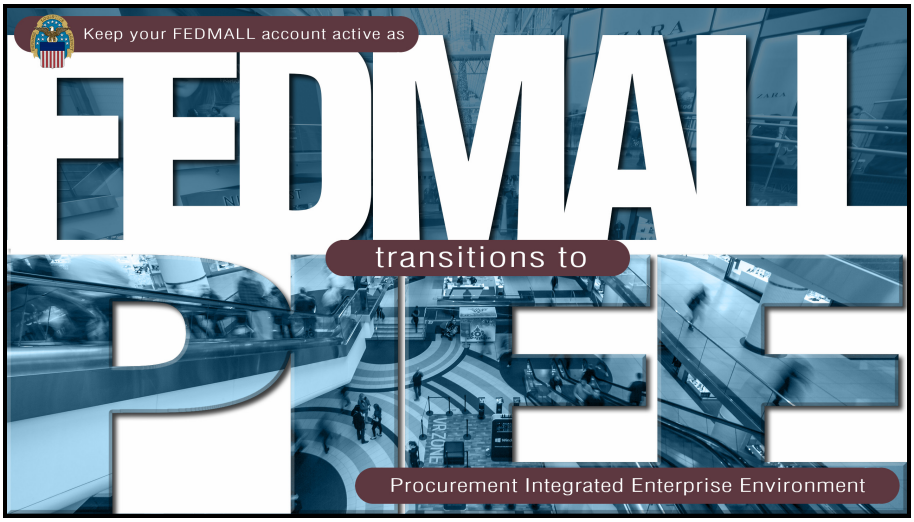
https://armypubs.army.mil/epubs/DR_pubs/DR_a/pdf/web/ARN6312_TC%206-02x6%20FINAL%20WEB.pdf

Logistics Management



FedMall—Oct 12 Deadline to Keep Accounts Active

/ Published Oct. 7, 2021



There's an Oct 12 deadline to ensure folks keep their FedMall accounts active. The FedMall website will be moving to a new platform and DLA needs to ensure users' log-on info is up-to-date and activated before this migration (users need to log in every 90 days to keep accounts active, anyway). After Oct 12, it'll essentially be "back to square one" to have their account approved and activated on the new platform.

Read more about this transition and the impact of missing the deadline here:

https://www.dla.mil/AboutDLA/News/NewsArticleView/Article/2802067/fedmall-users-must-have-active-status-by-oct-12-or-lose-account-access/.

Small Arms

Ammunition: Cold Weather Affects Performance

/ Published Oct. 7, 2021

Photo by John Pennell

Soldiers, we told you how ammo performs when it's hot, and now it's time to tell you what happens when it's cold. Keep reading to see how cold weather affects your ammo's performance.

Although all of you are not snipers, the information in Paragraphs 4-145 to 4-147 of FM 3-22.10, *Sniper* (Dec 17), discusses how temperature generally affects ammunition ballistics. Air density also affect ballistics of your ammo. Paragraph 4-147 tells you if the temperature drops 20 degrees, it'll cause the bullet to impact the target lower by one inch per 100 yards, two inches at 200 yards and so on.

Something else to consider is your weapon's zero. If the last time your weapon was zeroed the temperature was 90°F and you're now in freezing temperatures, your ammo could impact the target nine (9) inches low at 300 meters due to temperature and air density. The best way to ensure you hit what you're aiming at is to zero your

weapon again with the ammo you're carrying in the field and confirm your battle sight zero at 300 meters in the expected weather conditions.

Why confirm the battle sight zero at 300 meters? Because your 25-m zero is meant to get you in the general vicinity of your target out at 300 meters, but doesn't guarantee it. So confirming your zero at an actual 300 meters is crucial.

It's also important to keep your weapon and ammo dry in extremely cold weather. What happens when you bring your weapon in from the cold? The warm, humid indoor environment causes condensation to form on your weapon and ammo. If you take your weapon back outside with condensation on the ammo, then it'll freeze and cause serious problems. For instance, ammo with ice particles on it will not feed or fully chamber properly. That's why the best thing to do is secure weapons and ammo outside if you're going indoors for a quick warm up.

When you're done with outdoor training for the day, ensure all ammo is accounted for and turned in to the ammo point. Make sure your weapon is clear of ammo and bring your weapon indoors and give it time to warm up to the indoor temperature. Then thoroughly wipe all condensation off the entire weapon, and clean and lube the weapon in accordance with the TM before storing it in the arms room.

Never lube your ammo thinking it'll keep condensation off. Lubricant on ammo creates more problems, with the most hazardous being excessive pressure against the bolt face. This pressure causes cracks on the bolt locking lugs. See this *PS Magazine* article for details:

https://www.psmagazine.army.mil/News/Article/2397929/small-arms-ammunition-must-be-clean-and-dry/

Remember to report any defective ammo. This *PS Magazine* article has all the specifics:

https://www.psmagazine.army.mil/News/Article/2521161/ammunition-report-malfunctions/

Soldier Support

Soldier Support: Grounding and Bonding Info

/ Published Oct. 7, 2021

Photo by Sgt. Jermaine Jackson

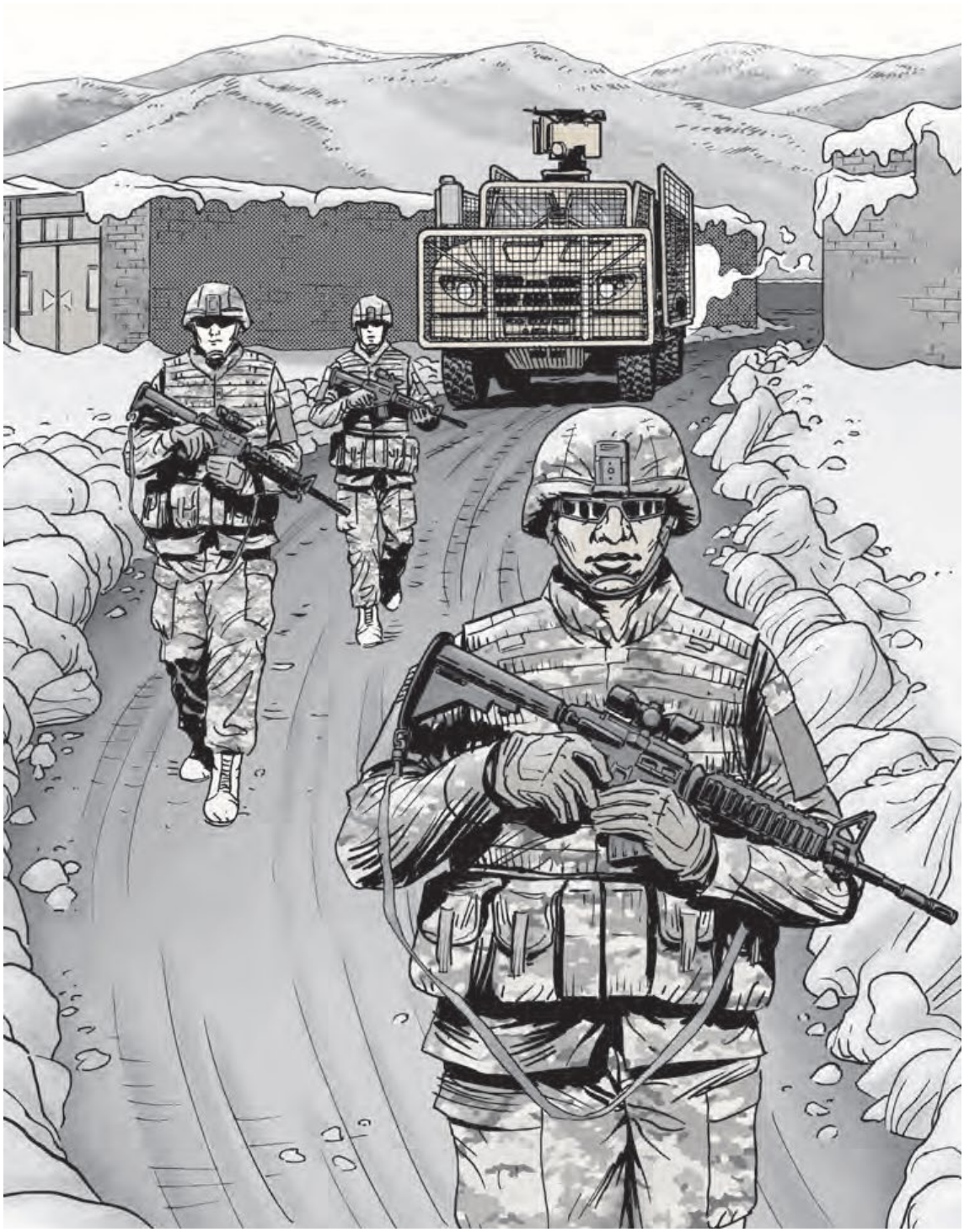
Proper grounding and bonding of generators and commo equipment isn't merely a safety step. It's a matter of life and death. For your own protection—and that of your fellow Soldiers—review CECOM Pamphlet TR 98-6, *Earth Grounding and Bonding Pamphlet* (Oct 98). Grab your CAC and download it from our milSuite site at:

https://www.milsuite.mil/book/docs/DOC-1060640

Also take a look at TC 6-02.6, *Grounding Techniques for Tactical Equipment and Systems* (Nov 17):

https://armypubs.army.mil/epubs/DR_pubs/DR_a/pdf/web/ARN6312_TC%206-02x6%20FINAL%20WEB.pdf

Tactical Vehicles



HMMWV: Driver Training and Safety

/ Published Oct. 20, 2021

Photo by Sgt. James Geelen

Listen up, drivers! The added weight of your up-armored HMMWV protects you during combat. But it also makes your vehicle handle a lot differently than a non-armored HMMWV.

That means you have to take into account weather, terrain and vehicle weight, among other factors, when planning missions and while driving. So here are some pointers to keep in mind:

- Perform rollover drills with a gunner and crew before all missions.
- Properly stow and secure all equipment in the vehicle during missions.
- Maintain appropriate speeds for the road conditions.
- Make sure everyone is wearing seat belts and the gunner is using the gunner restraint system (GRS).
- Use a ground guide when tactical conditions permit.
- Combat locks provide structural support in rollover events, which can occur in both combat and non-combat situations. Keep combat locks

engaged during standard operations unless operating around hazardous water.

Up-Armored HMWWV: B-Kit Heated Windshield Accessory Kit

/ Published Oct. 20, 2021

Photo by Staff Sgt. Ondirae Abdullah-Robinson

You might have seen the June 2020 *PS Magazine* article about the up-armored HMMWV converting the front windshield from improved vehicle emergency egress (IVEE) glass to rigid glass. We told you that units must order a B-kit heated windshield accessory kit to do the one-time conversion. You can view the story at this link:

https://www.psmagazine.army.mil/News/Article/2242290/up-armored-hmmwv-ivee-windshield-nsn-replacement/

Currently, FED LOG shows the B-kit heated windshield accessory kit as a terminal item and there isn't a replacement NSN. DLA has more of the kits on order. But if you need to replace a windshield for an up-armored HMMWV that has the new B-kit heated accessory kit installed, refer to maintenance action message MA 20-025 for

left-hand and right-hand windshield replacement NSNs. They're under Paragraph 8 (Supply Status). You can view MA 20-025 at the following link:

https://tulsa.tacom.army.mil/Maintenance/message.cfm?id=MA20-025.html

FMTV: New ABS Modulator Valve and Connector Cable

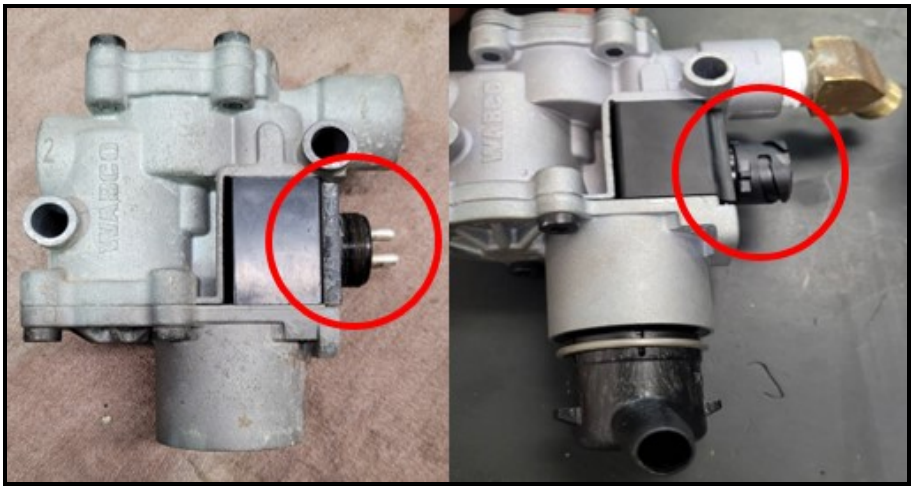
/ Published Oct. 20, 2021

Photo by Sgt. Paige Behringer

Maintainers, if you have an older FMTV of any variant that's equipped with the anti-lock braking system (ABS) with serial number 747,706 and below, here's what you need to know.

ZF WABCO, the ABS manufacturer, has replaced the ABS modulator valve, NSN 2530-01-470-5919, PN 4721950170, with a **new** ABS modulator valve, **NSN 4810-01-691-8109, PN S4721951130**.

In the following image of the old and new ABS modulator valves, the connectors are highlighted in red. Note that the old-style connector screws on, while the new bayonet-style connector twists on.



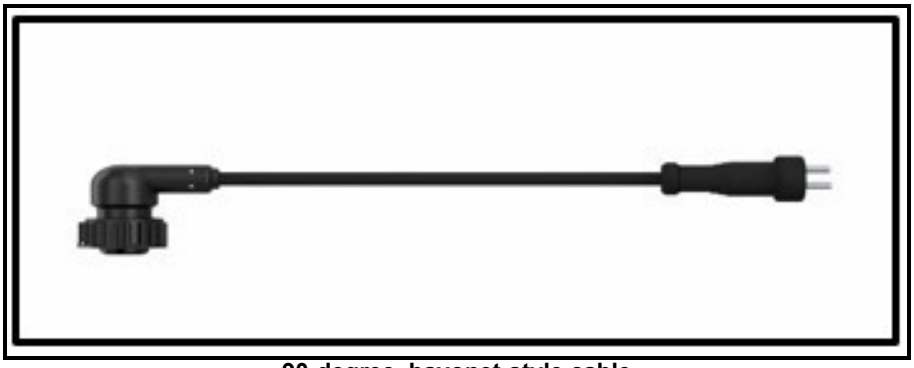
Old Kostal-style ABS modulator valve; New bayonet- style ABS modulator valve

Along with this new ABS modulator valve, you'll need an adaptor cable. The two (2) types of adaptor cable are the straight bayonet-style and the 90-degree bayonet style. Either cable can be used with the new ABS modulator valve.

The straight bayonet-style cable, **NSN 5995-01-626-3072, PN S8946011322**, is a replacement cable for the old cable on the Kostal-style ABS modulator valve. It can be used on the new ABS modulator valve.

Straight bayonet-style cable

The 90-degree, bayonet-style cable, **PN S8946011362**, has a 90-degree head for a more ergonomic fit. Other than that, it's the same cable as the straight bayonet-style cable. This cable doesn't have an NSN yet, however you can purchase it locally or order it directly from the manufacturer.



90-degree, bayonet-style cable

To order the 90-degree, bayonet-style cable from the manufacturer, go to ZF WEBCO aftermarket sales at this link:

https://www.wabco-customercentre.com/catalog/en_US/ALF

M1000 HET Semitrailer: 5-Year Service Kit

/ Published Oct. 21, 2021

Photo by 1st Lt. Janeen Phelps

Maintenance leaders, don't use the *5-Year Supplemental Booklet* anymore for your 5-year services on your M1000 semitrailers. That booklet was replaced by WP 0036.1 in TM 9-2330-381-13 (Apr 15, w/Ch1), and also be sure to use the parts manual, TM 9-2330-381-24P (Apr 15, w/Ch1).

Get the 5-year service kit with NSN 4910-01-626-0628. If you need an annual service kit, order NSN 4910-01-626-1154.

M149A2 Water Trailer: TM Updates for Brake Assemblies & Water Tank

/ Published Oct. 26, 2021

(Photo courtesy of TACOM)

If you have an M149A2 water trailer, there are some issues when it comes to the brake configuration in TM 9-2330-267-13&P (Dec 15).

There are four (4) updates to the TM that you'll need before you perform any brake work or order parts shown in Figs 7, 10, 11 and 21. The last update included below is for the water tank.

The TM update to Fig 7, Master Cylinder and Bracket, shows the new style cap and the master cylinder/air chamber assembly option.

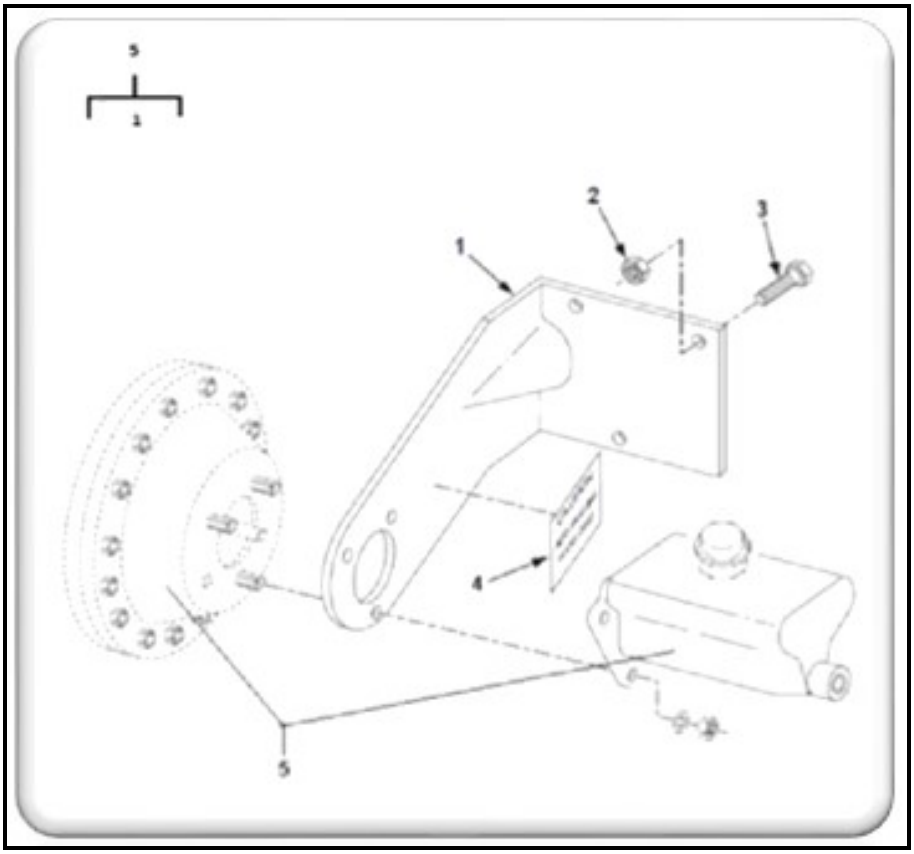


Fig 7 - Master Cylinder and Bracket (Added new style cap and master cylinder/air chamber assembly option)

The update to Fig 10, Master Cylinder, shows the updated master cylinder assembly and breakdown.

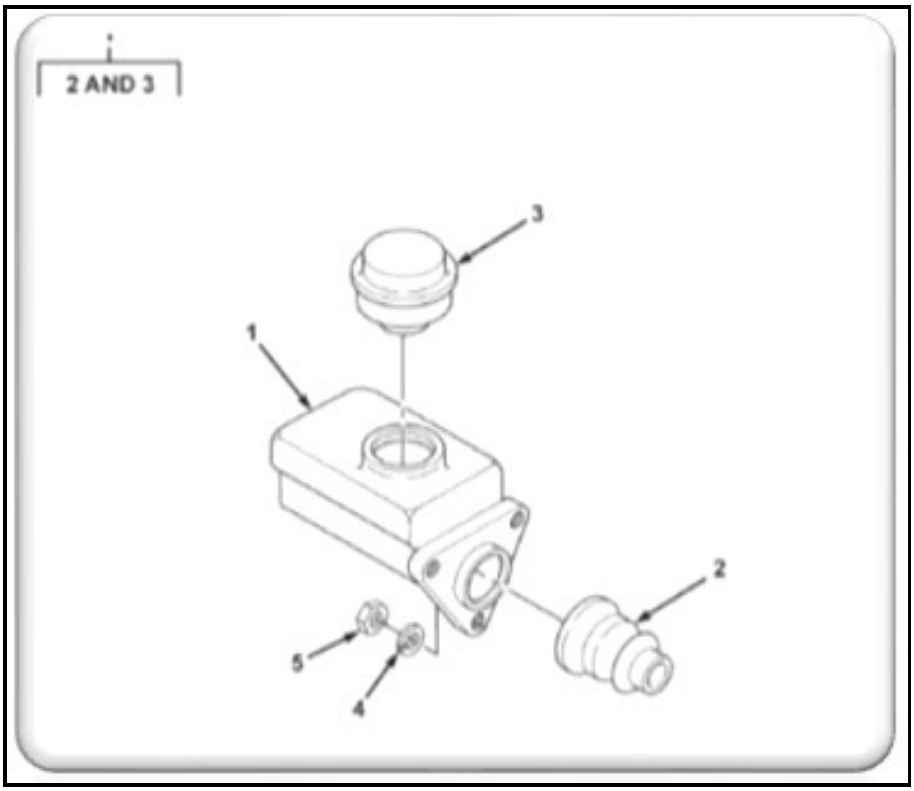


Fig 10 - Master Cylinder (Updated master cylinder assembly and breakdown)

The TM update to Fig 11, Air Hoses, Fittings, Relay Valve, Air Chamber and Pressure Tank, shows the current M149A2 brake system.

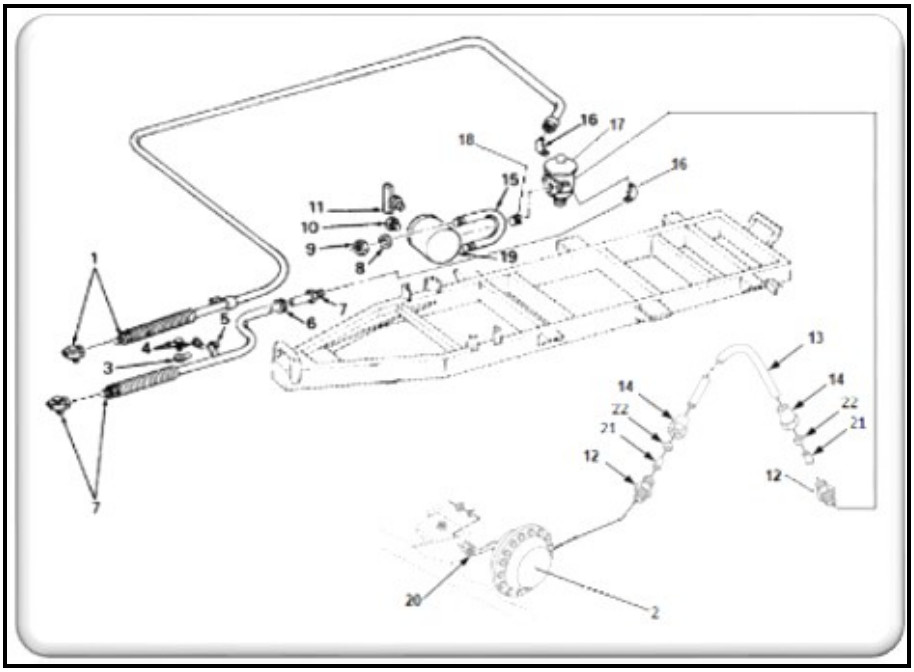


Fig 11 - Air Hoses, Fittings, Relay Valve, Air Chamber and Pressure Tank (Added the current M149A2 brake system)

The current version of Fig 21, Water Tank, Body Brackets and Manhole Cover, shows the older water tank. The update to Fig 21 has added the front heater port to match the latest drawing of the water tank.

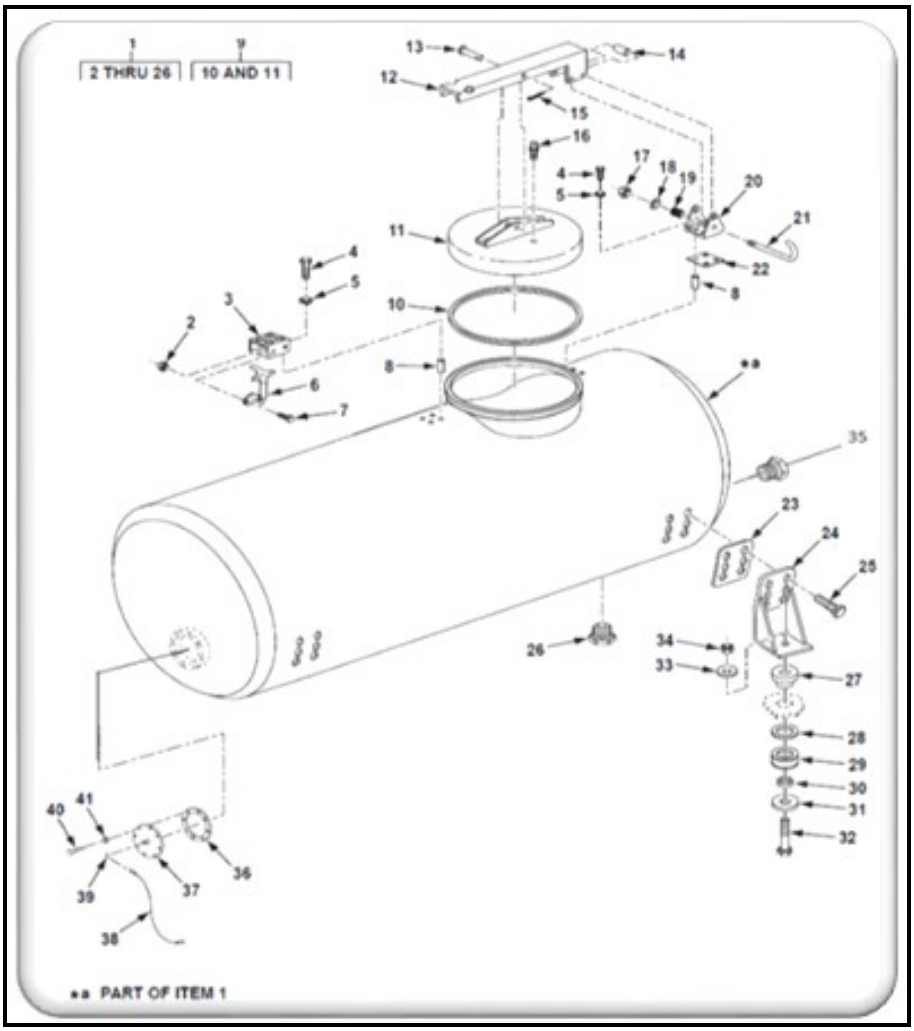


Fig 21 - Water Tank, Body Brackets and Manhole Cover (Added front heater port)

You can download a copy of each update (consolidated in a single document), which includes NSNs, part numbers and descriptions from the following attachment, and keep them handy until the TM is updated. Click link below:

TM Fig Updates

M149 Water Trailer: Don’t Learn Safety by Accident!

/ Published Oct. 28, 2021

Photo by Sgt. James Geelen

Dear Editor,

During a training exercise in March 2021, a Soldier suffered a serious foot injury while disconnecting a full M149 water trailer from the prime mover. The Soldier’s foot was fractured. I’d like to share the two (2) mistakes that my unit found which caused the mishap: the wrong adjustable caster assembly (landing leg) and lack of good PMCS

of the locking pins.

We found that the trailer was outfitted with a non-adjustable caster assembly (landing leg), which was designed for a lighter trailer like the M105, but **never** designed for a heavy trailer like the M149.

Non-adjustable caster is wrong landing leg

The **correct** landing leg for the M149 water trailer is the adjustable caster assembly, NSN 2590-01-183-6816.

Use M149 adjustable caster landing leg

The other issue was lack of proper PMCS of the landing leg locking pins. The pins were rusty and hard to properly seat, unless they were forced into position with a

hammer. This led to the locking pins not being fully inserted which resulted in their failure, causing the trailer landing leg to collapse. Proper maintenance requires cleaning and lubricating the locking pins for smooth operation as outlined in TM 9-2330-267-13&P (Dec 15).

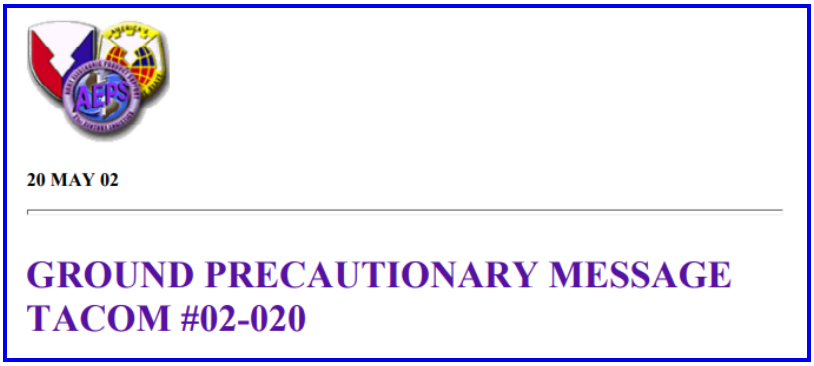
It's also recommended to use a paint marker or nail polish to draw a witness mark that indicates when the locking pins are properly in the locked position.

Draw witness mark on locking pins

Abdo Zacheus
Brigade Safety Manager

Editor's note: *Mr. Zacheus, we appreciate you sharing this information with us. And just in case anyone missed it, in 2002, the TACOM Safety Office issued Ground Precautionary Message (GPM) 02-20 advising that the mounting mechanism for the landing leg/caster used on many light trailers can fail if improperly used.*

Here's a copy of GPM 02-20:



20 MAY 02

GROUND PRECAUTIONARY MESSAGE
TACOM #02-020

Click on image above to open and view PDF

JLTV: Front-Rear Differential NSN Updates

/ Published Oct. 29, 2021

Photo Courtesy of TACOM

If you didn’t see the JLTV LARSALL message from 19 Feb 21, make a note that the NSNs for the front differential assembly shown as Item 1 of Fig 248 and the rear differential (transaxle) shown as Item 1 of Fig 256 in TM 9-2320-452-23&P (Feb 19) were posted to the wrong figure. For the correct information and additional details, click on the milSuite link below. Don't forget you'll need your CAC.

https://www.milsuite.mil/book/docs/DOC-1071020

If you have any questions, email one of the following TACOM JLTV points of contact:

agnieszka.a.janney.civ@mail.mil

trese.e.barton.civ@mail.mil