

BATTERY SPACER PLATE'S FATE



Dear Half-Mast,

While servicing M920 tractor trucks, I've noticed a recurring problem. The wooden spacer plate, NSN 5365-01-079-6540, that goes under the batteries often rots and needs replacing. That part costs almost \$50.

It sure would be nice to have this plate last longer in bad weather and battery leakage. Do you have a tip that can help us?

SGT B.L.R.

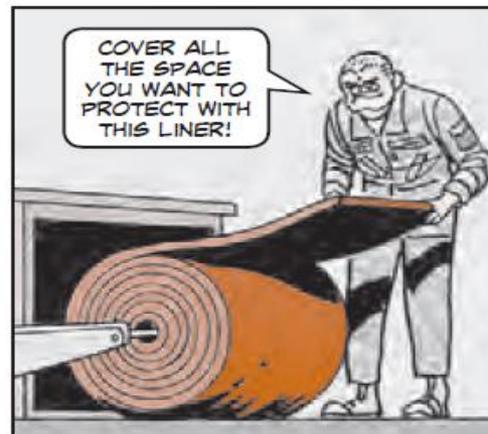
Dear Sergeant B.L.R.,

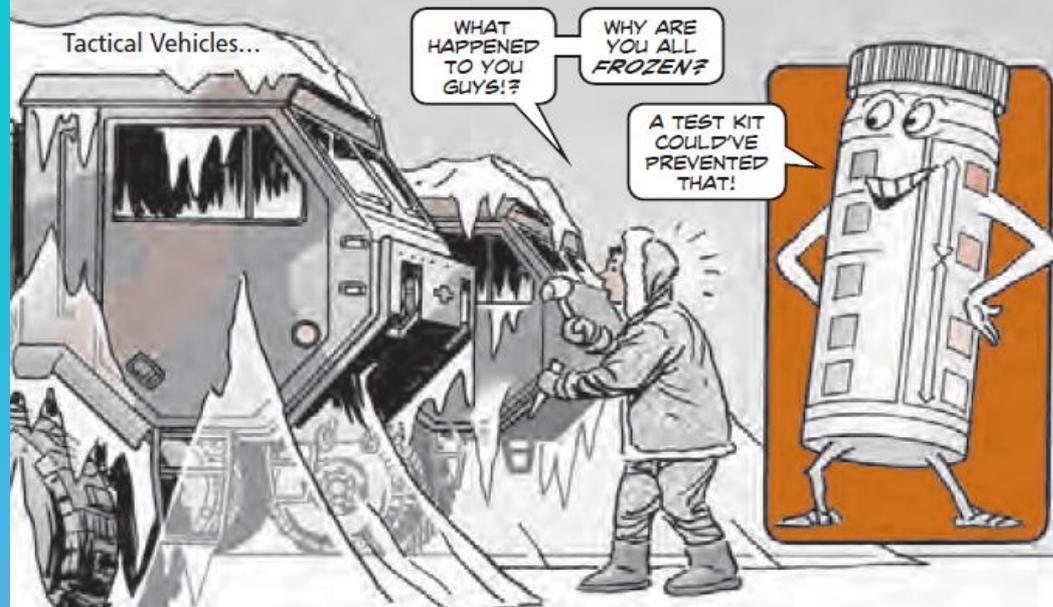
Certainly. You still have to use the spacer plate, but here's a tip that should help you out. Use battery box liner, NSN 6160-01-389-1966.

The battery box liner should absorb and neutralize battery acid and prevent corrosion to the box. You'll have to cut enough liner to cover the entire bottom of your truck's battery box.

Then replace it whenever you need to.

Half-Mast





ANTIFREEZE TESTS

Is your vehicle's cooling system ready to perform in all types of weather? If you're not sure, test it. This should happen at least during scheduled maintenance and climatic change services.

The combination antifreeze and battery tester, NSN 6630-00-105-1418, tests for freeze protection down to -50°F . Use this only for 50/50 blend antifreeze.

Antifreeze test kit, NSN 6630-01-011-5039, tests for freeze protection down to -60°F . The test strips in this kit can be used for both the 50/50 and 60/40 antifreeze blends.

Use commercial test strips to test the nitrite (corrosion protection) level of antifreeze. The ideal nitrite concentration for 50/50 antifreeze/water solution is between 1,200 and 1,400 ppm.

For more info on testing antifreeze, eyeball TB 750-651, *Use of Antifreeze Multi-Engine Type Cleaning Compounds and Test Kit in Engine Cooling Systems*. You can find it on LOGSA's ETM website:

<https://www.logsa.army.mil/etms/index.cfm>

Use a CIDA-A-51461C Type II antifreeze test kit for freeze protection



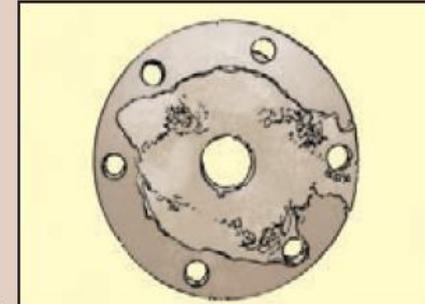
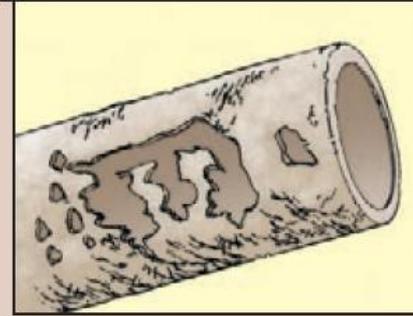
CUTTING CORROSION



9 Types of Corrosion

UNIFORM (or general attack):

Affects a large area of exposed metal surface, like rust on steel or tarnish on silver. It gradually reduces the thickness of the metal until it fails.

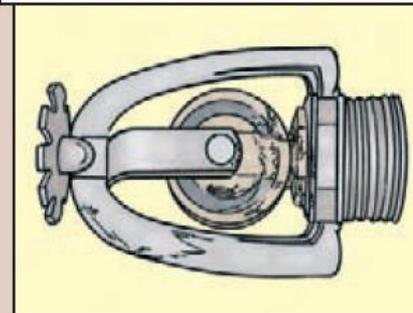


CREVICE:

Occurs in crevices created by rubber seals, gaskets, bolt heads, lap joints, dirt or other surface deposits. It will develop anywhere moisture or other corrosive agents are trapped and unable to drain or evaporate.

SELECTIVE LEACHING:

One element, usually the anodic element of an alloy, corrodes away, leaving the cathodic element. This can create holes in metal.

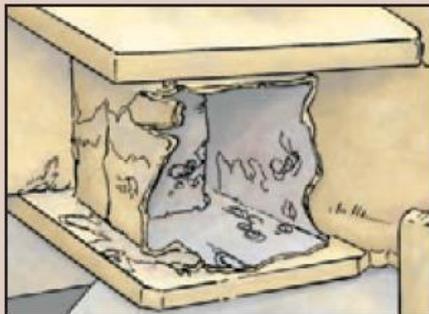


INTERGRANULAR:

Metal deterioration caused by corrosion of the bonds between or across the grain boundaries of a metal. The metal will appear to be peeling off in sheets, flaking, or being pushed apart by layers. A particular type of intergranular corrosion is exfoliation.

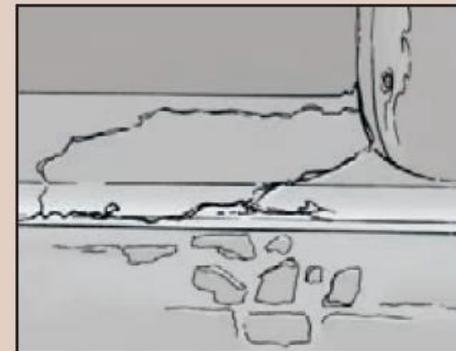
PITTING:

This can result from conditions similar to those for crevice corrosion. Pits can develop on various materials due to their composition. Rifle bores are big victims of pitting.



STRESS:

Term used to describe corrosion cracking and corrosion fatigue.

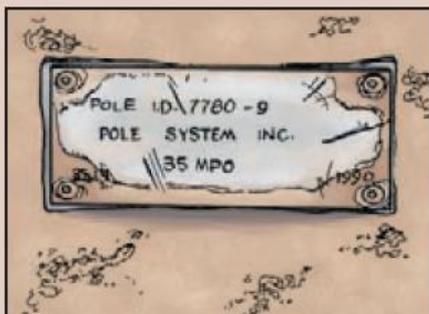
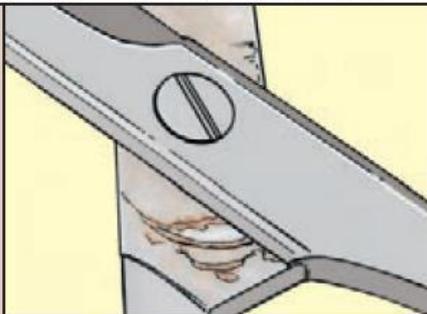


EROSION:

Results when a moving fluid (or gas) flows across a metal, particularly when solid particles are present in the fluid. Corrosion actually occurs on the surface of the metal, but the moving fluid washes away the corrosion and exposes a new metal surface, which also corrodes.

FRETTING:

Occurs between two pieces of weight-bearing metal in contact with each other. It's usually identified by a black powder corrosion product or pits on the surface.



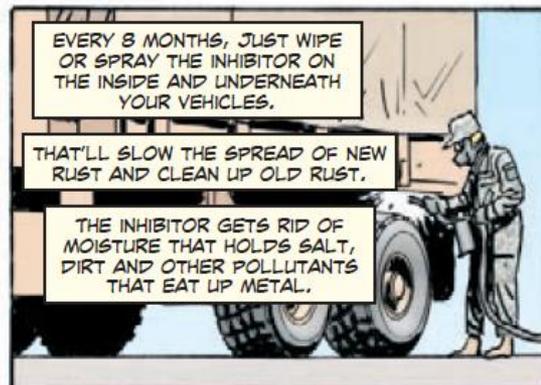
GALVANIC:

Occurs when two different kinds of metal come in contact with each other, like steel bolts on aluminum, for example. This is a common problem on aircraft because of their mix of metals.

Reach for Rust Inhibitor



BUT YOU CAN CURB THEIR EFFECTS AND LOWER REPAIR COSTS BY USING RUST INHIBITOR, ALSO KNOWN AS CORROSION PREVENTIVE COMPOUND.



RUST INHIBITOR IS PETROLEUM-BASED AND CONTAINS NO HAZARDOUS MATERIAL.

BUT THE HEADSHED STILL RECOMMENDS THAT YOU WEAR A RESPIRATOR, GOGGLES AND GLOVES WHEN APPLYING IT BECAUSE OF POSSIBLE IRRITATION TO YOUR RESPIRATORY TRACT OR SKIN.



ORDER THE AMOUNT OF INHIBITOR YOU NEED...

Quantity	NSN 8030-01-414-
16-oz bottles (12)	7423
5-gal container	8947

AS A RULE OF THUMB, IT TAKES ABOUT 2 GALLONS TO TREAT A HMMWV...

...AND UP TO 3 GALLONS FOR A 2 1/2-TON OR 5-TON TRUCK.



AND RUST INHIBITOR WON'T HARM PAINTED SURFACES, PLASTICS, RUBBER, GLASS OR WIRING, BUT IT'LL MAKE THEM SHINE FOR A WEEK OR TWO.



AS YOU CAN SEE, THAT RUINS YOUR CAMOUFLAGE, SO KEEP IT OFF THE PAINT ON THE OUTSIDE OF YOUR EQUIPMENT.



Counteract Corrosion

HERE ARE A FEW OTHER THINGS YOU CAN DO TO CUT BACK ON YOUR EQUIPMENT'S CORROSION...

- Paint or lube unprotected surfaces. Unprotected surfaces can corrode.
- Keep your equipment clean.
- Lube like the lube orders prescribe to prevent rust and premature replacement of pins and assemblies.



CLEAN YOUR WEAPON'S BARREL AFTER FIRING.



KEEP DRAIN HOLES UNCLOGGED. THAT WAY, WATER HAS LESS OF A CHANCE TO COLLECT AND CAUSE RUST.



A CORROSION FIGHTER MUST ACTIVELY SEEK OUT THOSE AREAS WHERE WATER CAN BE TRAPPED AND GET RID OF IT!



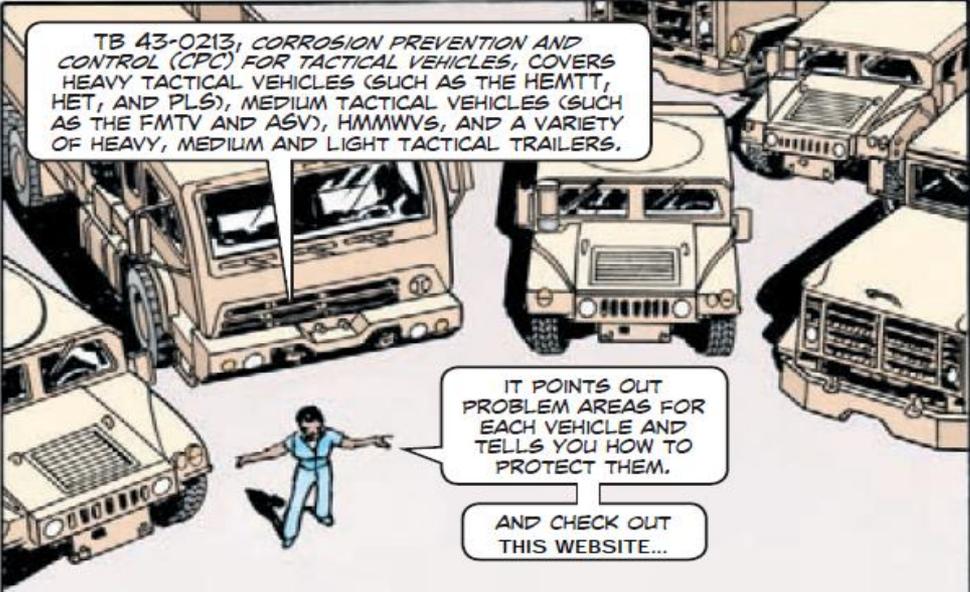
COATINGS SUCH AS PAINT, GREASE, PRESERVATIVES, OIL, ETC., PROVIDE THE BEST LINES OF DEFENSE AGAINST CORROSION.



AN UNPROTECTED SURFACE NEEDS TO BE REPAINTED OR RECOATED ASAP!



Helpful Pubs



TB 43-0213, CORROSION PREVENTION AND CONTROL (CPC) FOR TACTICAL VEHICLES, COVERS HEAVY TACTICAL VEHICLES (SUCH AS THE HEMTT, HET, AND PLS), MEDIUM TACTICAL VEHICLES (SUCH AS THE FMTV AND ASV), HUMWVS, AND A VARIETY OF HEAVY, MEDIUM AND LIGHT TACTICAL TRAILERS.

IT POINTS OUT PROBLEM AREAS FOR EACH VEHICLE AND TELLS YOU HOW TO PROTECT THEM.

AND CHECK OUT THIS WEBSITE...

DoD Corrosion: <https://www.corrdefense.org/>



EYEBALL A COPY ON LOGSA'S ETM ONLINE WEBSITE:
<https://www.logsa.army.mil/etms/online.cfm>



YOU MAY ALSO WANT TO CHECK OUT AR 750-59, ARMY CORROSION PREVENTION AND CONTROL PROGRAM.