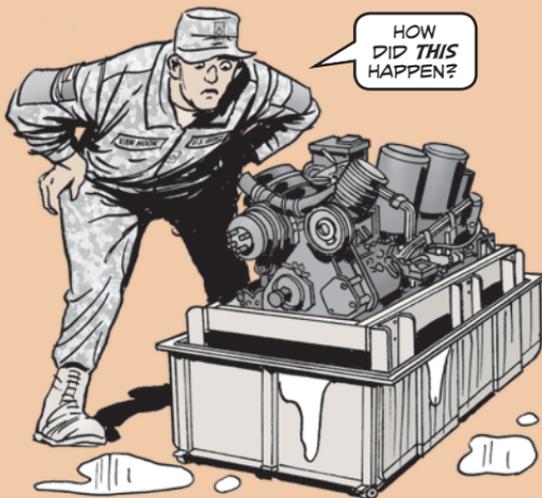


DON'T CUT ITS LIFE SHORT!



PRIVATE, YOU'RE FACED WITH ONE OF THE UGLIEST REMINDERS THAT PREVENTIVE MAINTENANCE HAS FAILED.

INSIDE THE LONG-LIFE REUSABLE CONTAINER (LLRC) YOU'VE JUST OPENED SITS THE ENGINE YOU SHIPPED IN GOOD CONDITION.

EXCEPT NOW IT'S FULL OF RUST AND CORROSION AND SITS IN A LARGE PUDDLE OF WATER.

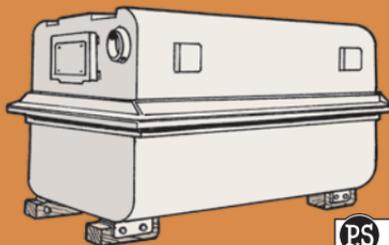
HOW COULD THIS HAPPEN?

I CLOSED UP THE LLRC. THERE WAS NO VISIBLE DAMAGE AND EVERYTHING SEEMED OK.

BUT WAS IT REALLY?

Long-Life Reusable Container (LLRC):

a shipping and storage container, such as a metal engine container, designed for reuse (and can be repaired/refitted) without impairing its protective function for up to 100 trips.



WHAT SHOULD HAVE HAPPENED?

DINGS AND DENTS ON FLANGES FIXED, OLD GASKET REPLACED, ALL SECURING BOLTS SHOULD HAVE BEEN USED.

Small Things Matter

The proper method of preservation per MIL-STD 2073-1, *Standard Practice for Military Packaging*, was followed and even the correct LLRC was available. The LLRC still had its original gasket and most of its bolts. Although there were a few dings and dents around the flanges, it seemed OK to use.

Just before the top was about to be put on, you tossed in some desiccant. One landed on the engine, but so what, you thought. The humidity indicator was blue, so it did not need to be replaced, then.

Unfortunately, so many engines were shipping back out, your LLRC sat in the yard for more than 60 days without being checked. The humidity indicator card started out blue, but gradually changed to lavender and then to pink, finally becoming all white. Is it any wonder that the engine ended up in condition code F? What should have happened?

The same care used to ship an asset to the joint operations area needs to be applied for redeployments.

First, those dings and dents on the flanges might have prevented a good seal. They should have been repaired. And the old gasket should have been replaced. Think comparative cost: a new gasket versus a new engine.

The top and bottom of the LLRC need to be secured by **all of its bolts**. The four corner drill may work well in basketball, but it didn't seal your LLRC!

What about the Desiccant?

If the LLRC is equipped with a desiccant port, the desiccant should be placed in the basket located inside of the port, never on the asset.

Consult the special packaging instructions for details on how much desiccant to use. If you're unable to determine how much is needed, contact LOGSA PSCC for assistance at:

logsapsc.sr.tyad@us.army.mil

WHEN SHIPMENTS ARE DELAYED, DESICCANT CAN BECOME SATURATED.

CHECK CONTAINERS FOR INCREASING HUMIDITY. IF IT RISES ABOVE 50 PERCENT HUMIDITY, ACTION IS NEEDED.

Take a look at the humidity indicator card. If it is not blue, change out the desiccant and check the card.

Sitting outside for 60 days, exposed to the elements, is a long time. During extended storage, the humidity indicator should be checked at least every 30 days.

Desiccant:
A substance that induces or sustains a state of dryness (desiccation) in its local vicinity in a moderately well-sealed container.

Pre-packaged desiccant is most commonly used to remove excessive humidity that would normally degrade or even destroy products sensitive to moisture.

Humidity indicator card:
A humidity indicator card has a moisture-sensitive chemical that will change color when the indicated relative humidity is exceeded. It is an inexpensive way to quantify relative humidity levels inside sealed packaging. They are available in many configurations and used in many applications, especially military and semiconductor.

Increase Inspections

Increased inspection of containers awaiting shipment is important because most metals suffer little or no corrosion while desiccant keeps the relative humidity below 50 percent. Once the humidity indicator starts to change color, it is time to replace the desiccant within the desiccant port. If the humidity indicator goes back to blue, the engine inside should be OK. But, the LLRC will need to be further monitored.

If the humidity indicator does not go back to blue, it may be necessary to open up the LLRC to inspect the engine, check for other problems, and to replace the gasket and desiccant.

REMEMBER THAT RUSTY ENGINE? ALL OF ITS PROBLEMS COULD HAVE BEEN PREVENTED, MONEY AND EFFORT SAVED, AND READINESS RATES IMPROVED...

...BUT ONLY IF ALL OF THE NECESSARY STEPS FOR PREVENTING ENGINE CORROSION HAD BEEN FOLLOWED.