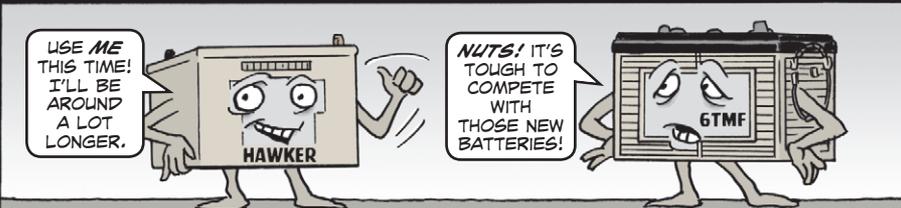




"HAWKER" BATTERIES LAST LONGER



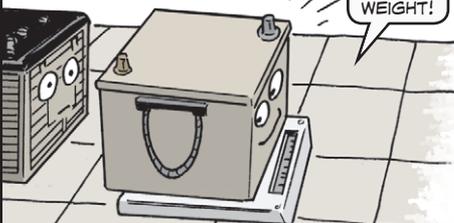
Got dead batteries in your M1-series tank? Before replacing those old 6TMF batteries with more of the same, consider ordering "Hawker" absorbed glass mat (AGM) batteries instead.

The newly authorized Hawker AGM, NSN 6140-01-485-1472, is a sealed, maintenance-free battery that offers improved "deep-cycle" performance. Deep cycle is the ability of a battery to be deeply discharged and recharged a number of times without losing capacity. It costs more than the 6TMF—\$267 vs. \$113—but has a longer service life.

These batteries are in the process of being added to the M1A1 and M1A2 SEP TMs as an acceptable alternate to 6TMF batteries.

There are a few things you need to know before Hawker AGM batteries can be installed in your tank:

- Hawker AGM batteries weigh approximately 88 pounds. That's roughly 16 pounds heavier than a standard 6TMF battery and exceeds the single soldier lift/carry limitations. So get help when handling the Hawker AGM batteries to prevent injury.



- Hawker AGM batteries come fully charged and should need no special battery chargers. However, some chargers have been known to overcharge these batteries, so close monitoring is vital during the first two hours.

Be on the lookout for heat buildup. That's a sure sign that the battery is being overcharged. If the battery gets too hot, stop the charging and do not use that particular charger on Hawker AGM batteries in the future.

- Never mix Hawker AGM batteries with 6TMF batteries on the same tank. All six batteries in the battery compartment **must be** the same type.



Mixing Hawker AGM and 6TMF batteries on the same tank can cause charging problems and is **strictly prohibited** due to safety risks.

If your M1A2 SEP tank has the additional six batteries in the left rear sponson (the "6-Pack" battery mod), then all 12 batteries on the tank **must be** the same type.

- Field maintenance should continue to service the Hawker AGMs in accordance with the applicable M1-series tank TMs and TM 9-6140-200-14, *Operator's, Unit, Direct Support and General Support Maintenance Manual for Lead-Acid Storage Batteries*.

- The voltage regulator, NSN 6110-01-233-1135, currently used in M1-series tanks has a charging rate that can be too high for Hawker AGMs, especially in high heat or high use situations. This voltage regulator can overcharge the batteries and could lead to "thermal runaway."

Thermal runaway is a condition where the battery cells get so hot that they destroy themselves. Not only will this ruin the batteries, but it can also lead to a battery box fire.

Try to limit the number of times you run down the charge before starting the main engine to recharge the batteries. Running the batteries way down results in high charge currents and more heat. It also shortens the service life of the Hawker AGMs.

Deep discharging Hawker AGMs in cold environments can also shorten their life span because the current voltage regulator will undercharge them.

To solve both the high and low temperature problems, a newly designed voltage regulator, NSN 6110-01-540-7819, will be available sometime in 2007. Until then, be very careful when recharging Hawker AGM batteries.

