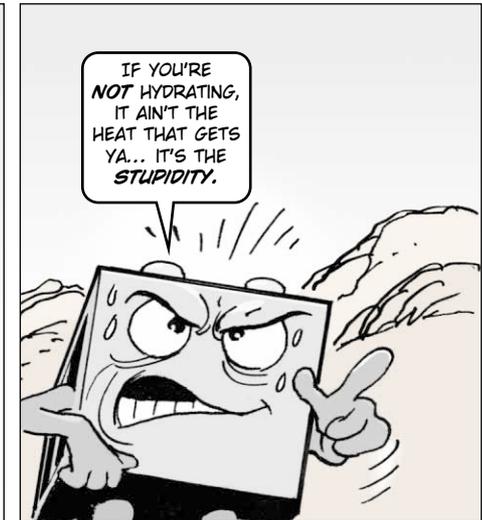
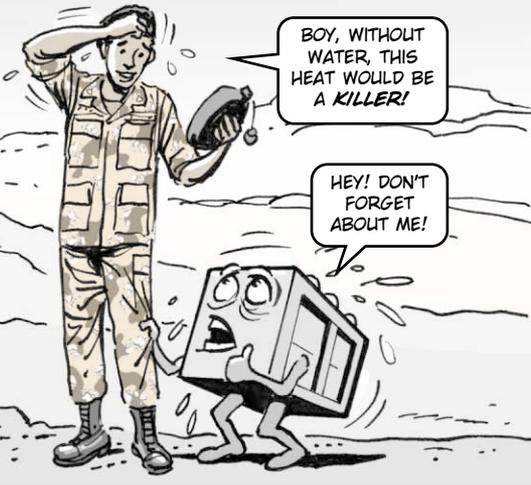


Lead-Acid Batteries...

# Providing Power in the Heat

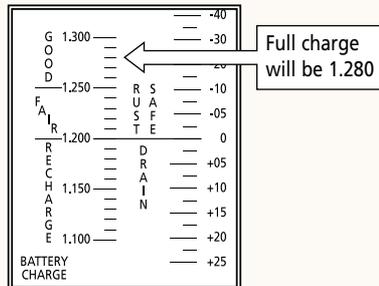
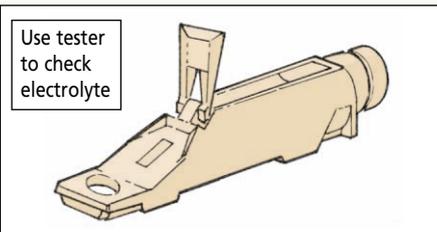


**W**orking in the heat means drinking lots of water so your body stays hydrated. So... you drink lots of water. Working in the heat also affects the water in lead-acid batteries. So... you have to keep them hydrated, too.

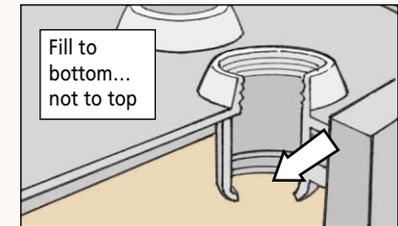
## Where Does It Go?

Normal charging causes some water in the electrolyte to evaporate. But overcharging drives off much more water. Add in the evaporation caused by high temperatures and your batteries can go dry quickly.

Just adding water won't always be enough to save your batteries. First off, the batteries need to be checked by your mechanic using the optical battery/antifreeze tester, NSN 6630-00-105-1418. A fully-charged battery should give specific gravity readings of 1.280.



Then operators should eyeball the electrolyte levels at least once a day if the temperature stays above 90°F for a week. The level should be at least 1/2 inch above the top of the battery plates. If the filler hole has a lip or an indicator at the bottom, it should be filled to that.



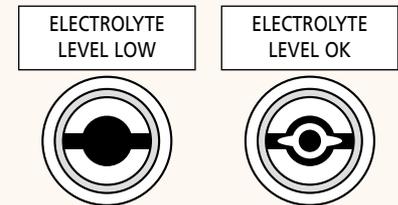
## Adding Just Enough

More is not better, though. If batteries are filled to the rim, the electrolyte will boil out through the vent caps when the battery charges. Use the battery filler syringe, NSN 6140-00-808-7325, to remove any excess.

Make sure, too, that the vent caps are open so that gases can escape. If the vents are clogged, the battery can explode.

If you find a battery that needs water, let your mechanic know ASAP. The best water is distilled water. NSN 6810-00-682-6867 gets a gallon and NSN 6810-00-356-4936 gets a 5-gal jug.

Another good choice is battery water. It has no more than 100 parts per million of impurities, and costs a little less than distilled water. Get a gallon with NSN 6810-00-286-3783 and a 5-gal jug with NSN 6810-00-297-9540.



THIS BIRD'S EYE VIEW SHOWS EYE-SHAPE

Ground water has minerals in it that can kill batteries, so don't use it. If there's no other choice, plain drinking water (not mineral water) can be used.

Use a battery syringe or a battery gravity filler, NSN 6140-00-635-3824, for precise filling and help in avoiding overfilling. Both are in the No. 1 Common shop set.



### Tight and Right?

Make sure the caps are in place on the fill holes. If you need caps, ask your mechanic for them from an unserviceable battery.

Mixing batteries of different types is OK, as long as you don't use maintenance-free batteries with the older style. It's best to keep 6TLs, 6TLFs and 6TMFs together.

