



The battery has a higher specific gravity

Technician A says a 12.6-volt open circuit voltage reading indicates a fully charged battery. Technician B says a hydrometer reading of 1.265 indicates that a battery cell has the proper electrolyte specific gravity.

The battery is considered fully charged when specific gravity reaches its highest possible value. Specific gravity varies with temperature and the quantity of electrolyte in a cell. When the electrolyte is near the low-level ...

A only Technician A is correct and Technician B is wrong because maintenance free batteries do not have openings to check the specific gravity of the electrolyte with a hydrometer. 7. When performing a load test on a battery, a technician finds that the battery voltage drops below specifications. ... High battery voltage level b.

But most will have three charge settings for charging an automotive battery: Slow (2A). Medium (10A). High (50A - Engine Start). It's common for new (modern) battery chargers not to have a simple switch to select between the three different charge rates. ... Good Battery: The specific gravity reading of each cell is close to or around 1.265 ...

Technician B says the specific gravity of a fully discharged battery is around 1.100. Who is correct? ... Group of answer choices It may have the same rating as the original battery It may have a higher rating than the original battery It may have a lower rating than the original battery It should be selected according to an application chart.

A fully charged lead acid battery used in today's car has a specific gravity of 1.265 fully charged. Use this handy guide to perform this test using a battery hydrometer. ... the specific gravity is higher than optimal. When a technician ...

The higher the acid concentration within the cell, the higher the specific gravity it will have. That means that the lower the strength of the acid within the battery, the lower the specific gravity it will have. If the specific gravity of a battery is low, that means that something's wrong with it, which can eventually lead to more severe ...

SPECIFIC GRAVITY VERSUS BATTERY CHARGING CURRENT M. S. (Steve) Clark Senior Engineer Bechtel Power Corp. ... If a cell has a higher or lower S.G. than the other cells in the string, then it will normally have a higher or lower S.G. reading even if there is a wide variation in the average S.G. for the string between sets of readings.

The specific gravity can be measured using a hydrometer and will have a value of about 1.250 for a charged cell and 1.17 for a discharged cell, although these values will vary depending on the make of battery. The specific gravity also depends on the battery temperature and the above values or for a battery at 15°C. Specific gravity is defined as:



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A fully charged battery typically has a specific gravity reading between 1.265 and 1.299. ... The float is calibrated to read in terms of specific gravity and will float higher or lower depending on the density of the electrolyte. Some hydrometers may also include a thermometer for measuring the temperature of the electrolyte.

Partially Charged Battery: A partially charged battery can have a specific gravity reading between 1.225 and 1.250. The exact value depends on the depth of discharge. ... Low specific gravity may indicate a discharged or deteriorated battery, while high specific gravity may suggest overcharging or a battery in good condition.

The higher the acid concentration within the cell, the higher the specific gravity it will have. That means that the lower the strength of the acid within the battery, the lower the specific gravity it will have. If the specific gravity of a battery ...

Table 4: Relationship of specific gravity and temperature of deep-cycle battery Colder temperatures provide higher specific gravity readings. Inaccuracies in SG readings can also occur if the battery has stratified, meaning the concentration is light on top and heavy on the bottom(See BU-804c: Water Loss, Acid Stratification and Surface Charge) High acid ...

But most will have three charge settings for charging an automotive battery: Slow (2A). Medium (10A). High (50A - Engine Start). It's common for new (modern) battery chargers not to have a simple switch to ...

A fully charged battery typically has a specific gravity reading between 1.265 and 1.299. This range indicates that the battery is fully charged and in good health. ... On the other hand, in temperate climates, low temperatures can cause the electrolyte to freeze, leading to high specific gravity readings. Identifying False Readings and Common ...

Measuring the density of the battery acid therefore gives information about the concentration of H_2SO_4 and the charging status of the battery. Depending on the result, the operator knows whether the battery needs maintenance or needs to be exchanged. To detect and maintain the weakest cell(s) of the battery, a regular density check is mandatory.

Specific Gravity 1.260 - 1.285 Specific Gravity below 1.260 Specific Gravity 1.210 Specific Gravity below 1.130 Fully Charged Acid in water gives electrolyte specific gravity of 1.260 Going Down As battery discharges, acid begins to lodge in plates. Specific gravity drops. Unsafe Battery half discharged. More acid in plates, less in electrolyte.

If you are measuring the specific gravity in flooded golf cart batteries, depending on the voltage of the battery, you may have 3 (6V), 4 (8V) or 6 (12V) cells. Note the results - Once all cells have been tested, re-install ...

Specific gravity is defined as the ratio comparing the weight of any liquid to the weight of an equal volume of



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water. The specific gravity of pure water is 1.000. Lead-acid batteries use an electrolyte which contains sulfuric acid. Pure sulfuric acid has a specific gravity of 1.835, since it weighs 1.835 times as much as pure water per unit ...

Study with Quizlet and memorize flashcards containing terms like A hydrometer is used to check the ____ of battery electrolyte, Technician A says that a specific gravity reading of 1.175 indicates that a battery is in need of recharging. Technician B says that a specific gravity reading of 1.175 indicates that the battery is fully charged. Who is right?, Service life of an HV ...

Having to add water to a low-maintenance battery can be an indication of a higher-than-specified charging voltage. True. Battery efficiency is reduced as the temperature falls below 82°F (28°C). ... Technician B says a corrected hydrometer reading of 1.265 indicates that a battery cell has the proper electrolyte specific gravity. Who is correct?

12.6 volts or higher with a specific gravity of 1.265 or higher. Some vehicles use an AGM-type battery. This means the electrolyte is _____ inside the battery ... A charge indicator (eye) operates by showing green or red when the battery is charged and dark if the battery is discharged. This charge indicator detects _____. Specific gravity ...

Both high and low density or specific gravity than the normal range of urine indicates medical problems. An increase in the specific gravity of urine indicates that it is due to an increase in the solutes caused by dehydration, diarrhea, or ...

A battery high rate discharge (load capacity) test is being performed on a 12 volt battery. Technician A says that a good battery should have a voltage reading of higher than 9.6 volts while under load at the end of the 15-second test. ... When measuring the specific gravity of the electrolyte, the maximum allowable difference between the ...

A higher specific gravity reading can, in most cases, decrease the service life of the battery. Should a reading occur in which the float does not float, you can assume that the cell is bad or that the battery has been fully discharged at the time of the reading. In this case, it may take several hours on a charger to reach the minimum specific ...

Concentrated sulfuric acid has a specific gravity of 1.84 while the specific gravity of distilled water is 1.00. When the sulfuric acid is diluted with water to make the battery electrolyte, the specific gravity of the end product should be between 1.26 and 1.30. ... battery cell, dip the hydrometer into and acid and take it out. The chances of ...

Flooded lead acid batteries contain a liquid acid solution that is critical to the battery's performance. The acid concentration is determined with a tool called a hydrometer; the hydrometer measures density, or specific gravity. Specific gravity (SG) is very important because it's the most direct indicator of battery state of charge.



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State of charge (SoC) is Read ...

Specific Gravity: The most accurate and direct way to test the state of charge of a battery cell is to determine the specific gravity of the battery electrolyte. The higher the specific gravity of the electrolyte the higher the state of charge...

By regularly measuring the specific gravity, battery users can identify potential issues early on and take corrective actions, such as desulfating or equalizing the battery, to extend its life. ... The scale is typically marked in units of specific gravity, allowing you to read the value directly. A higher specific gravity indicates a denser ...

A fully charged battery will have a high acid content which gives it a higher specific gravity. A discharged battery will be pretty much water, which has a lower density. This density, ...

Specific gravity is defined as the ratio comparing the weight of any liquid to the weight of an equal volume of water. The specific gravity of pure water is 1.000. Lead-acid batteries use an electrolyte which contains sulfuric acid. Pure ...

Study with Quizlet and memorize flashcards containing terms like Technician A says a 12.6-volt open circuit voltage reading indicates a fully charged battery. Technician B says a hydrometer reading of 1.265 indicates that a battery cell has the proper electrolyte specific gravity. Who is correct?, Technician A says the current capacity rating of a battery depends on the types of ...

When measuring the specific gravity of the electrolyte, the maximum allowable difference between the highest and lowest hydrometer reading is _____. Technician A only. A battery high rate discharge (load capacity) test is being performed on a 12 volt battery. Technician A says that a good battery should have a voltage reading of higher than 9.6 ...

With an AGM (sealed lead-acid) battery, higher voltage is required to get the job done. Charge the battery using a charger that can consistently supply between 18 and 20 volts. ... The specific gravity of the acid is over 1.275 (conventional ...

When it comes to battery maintenance, one crucial aspect is monitoring the specific gravity of the battery. Specific gravity refers to the density of a battery's electrolyte solution compared to water. It is a vital indicator of a battery's state of charge and its overall health. ... Water Loss: If a battery experiences prolonged exposure ...

The specific gravity decreases during the discharging of a battery to a value near that of pure water and it increases during a recharge. The battery is considered fully charged when specific gravity reaches it's highest possible ...



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A battery's specific gravity is a great way of measuring a battery's state of charge. This is because, during discharge, the specific gravity decreases linearly with ampere-hours discharged. The specific gravity also increases as ...

Here's a breakdown of how specific gravity correlates with the battery's state of charge: High Specific Gravity (Fully Charged): A specific gravity reading on the higher end of the scale indicates a fully charged battery. This is crucial information for applications like automotive use, where dependable starting power is essential.

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