

TAB Air mixing system

ASSEMBLY AND OPERATING INSTRUCTIONS for TAB Traction batteries with air mixing system

PRINCIPLE OF ELECTROLYTE AIR MIXING SYSTEM.

This optional system is recommended for heavy duty use, short charge times, boost or opportunity charging and in case of use at high ambient temperatures. The system reduces water consumption, working temperatures and a charge factor, prevents the stratification of the electrolyte and reduces charging time. When a battery is charged, concentrated sulphuric acid is formed. In comparison

with "normal acid", concentrated sulphuric acid is heavier, and sinks towards the bottom of the cell, resulting in acid stratification. To avoid this stratification the air is introduced into the battery right at the main charging stage. The rising air bubbles circulate the electrolyte, thereby preventing stratification of the acid. In comparison with other mixing methods, mixing of the acid by in-blown air gives the greatest efficiency.



The principle of the electrolyte circulation system is based on air pumping into the each battery cell which creates a circulating air stream inside the cell box so ensure that the charger belonging to the battery is designed for electrolyte circulation.

The charge plug with integrated air supply automatically supplies air to the battery pipe system after connecting to the charger designed for electrolyte circulation.

For optimized operation the pump should supply pressure around 0,2 bar and air flow 60 liters/cell,hour. Only purified air may be supplied to the cells.

This is to be ensured by means of a suitable filter. Before initial operation of battery with electrolyte circulation system make a visual examination of the electrolyte surfaces of all cells for movement and rising air bubbles during running the air pump.

At least once a year, the pump air filter must be changed. In work areas with high level of air pollution, the filter should be checked and replaced more frequently to assure proper air circulation.

