

JIS TYPE 440AH (VSB10) GS Forklift Battery repair results Manufacture data: 2003 6 years old



1. Initial Battery Data May 30th, 2009

Cell #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Total
Gravity	1.29	1.29	1.29	1.29	1.29	1.29	1.27	1.27	1.28	1.28	1.28	1.28	1.27	1.28	1.27	1.29	1.28	1.27	1.28	1.29	1.28	1.27	1.27	1.28	30.63spgr
Voltage	2.19	2.14	2.14	2.13	2.14	2.14	2.14	2.13	2.13	2.14	2.14	2.14	2.15	2.14	2.14	2.15	2.14	2.14	2.14	2.13	2.14	2.14	2.13	2.14	51.34V

2. Post Additive Data July 14th, 2009 (2 weeks)

Cell #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Total
Gravity	1.30	1.30	1.30	1.30	1.30	1.30	1.29	1.29	1.27	1.27	1.27	1.27	1.27	1.29	1.27	1.27	1.27	1.28	1.27	1.27	1.27	1.27	1.27	1.30	30.56spgr
Voltage	2.12	2.12	2.12	2.12	2.12	2.12	2.12	2.12	2.12	2.12	2.12	2.12	2.13	2.12	2.12	2.13	2.13	2.12	2.13	2.12	2.13	2.13	2.13	2.13	50.96V

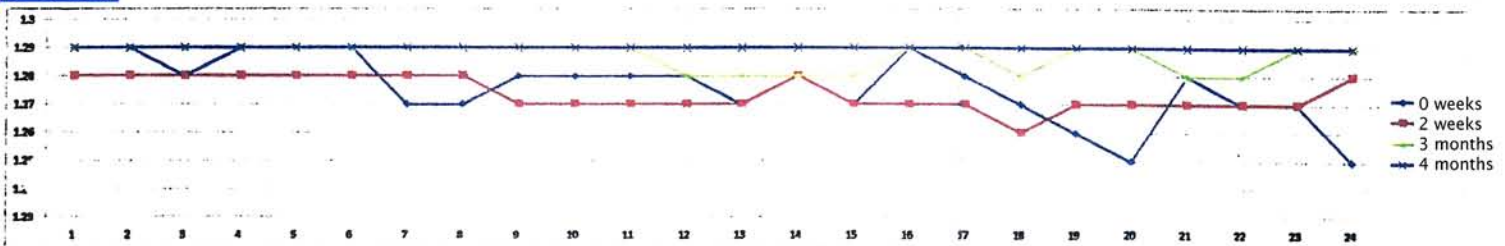
Oct 9th, 2009 (3 months)

Cell #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Total
Gravity	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.28	1.28	1.28	1.28	1.29	1.29	1.28	1.29	1.29	1.28	1.28	1.29	1.29	30.89spgr
Voltage	2.13	2.12	2.13	2.13	2.14	2.13	2.13	2.12	2.12	2.13	2.12	2.13	2.13	2.11	2.12	2.12	2.13	2.12	2.12	2.13	2.13	2.13	2.12	2.12	51.01V

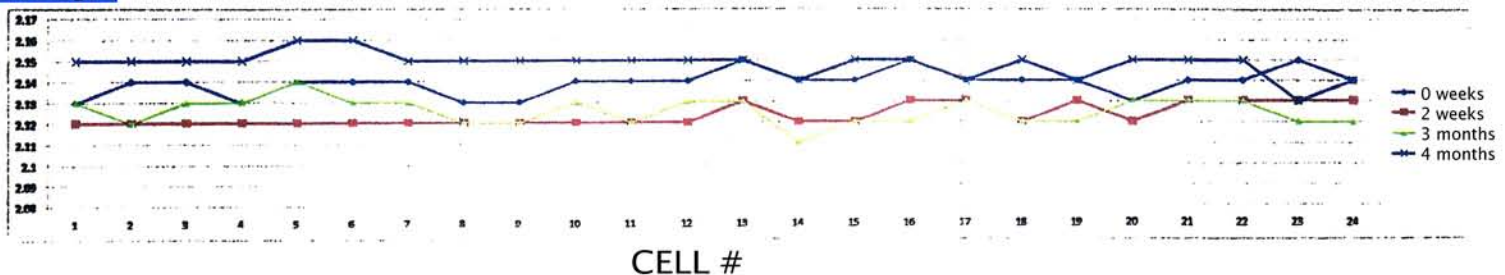
Nov, 14th, 2009 (4 months)

Cell #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Total
Gravity	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.29	30.96spgr
Voltage	2.15	2.15	2.15	2.15	2.16	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.14	2.15	2.15	2.14	2.15	2.14	2.15	2.15	2.15	2.13	2.14	51.54V

SP Gravity



Voltage



Method: 45cc was added into each cell of the forklift battery. Approximately 1 liter (45ccx24=1.080l) No cells were replaced. Battery was used min 3-4 times a week (charged/discharged) and charged with standard forklift battery charger until full capacity was achieved.

Analysis: This a perfect example of a forklift battery that within a year will need to be replaced. Note cells 19,20, 21 and 24 erratic specific gravity behavior at zero weeks. The voltages are also hovering at around 2V which indicates imminent battery replacement and capacity drop within 1 year. After 2 weeks specific gravity in highlighted cells has stabilized. After 4 months the highlighted cells SPGR read at PAR with all other 24 cell readings. This battery will last at least 1-2 years longer than if additive was not added. NOTE: STABLE READINGS AND CONSISTENT READINGS (cell to cell) ARE WHAT DETERMINES A HEALTHY BATTERY LIFE.