

Pleasure Boat and Work Boat

Boat Electric

Monitoring of desulfation effect by "Nanopulser" was done by Boat Electric with 4D Interstate Battery brought to shop by a customer as a dead battery.

Date:	September 2005
Type:	12V Battery
Manufacturer:	Interstate Battery
Specification:	4D, 160 Ah (20 h), 1314 CCA

Specific Gravity of each cell

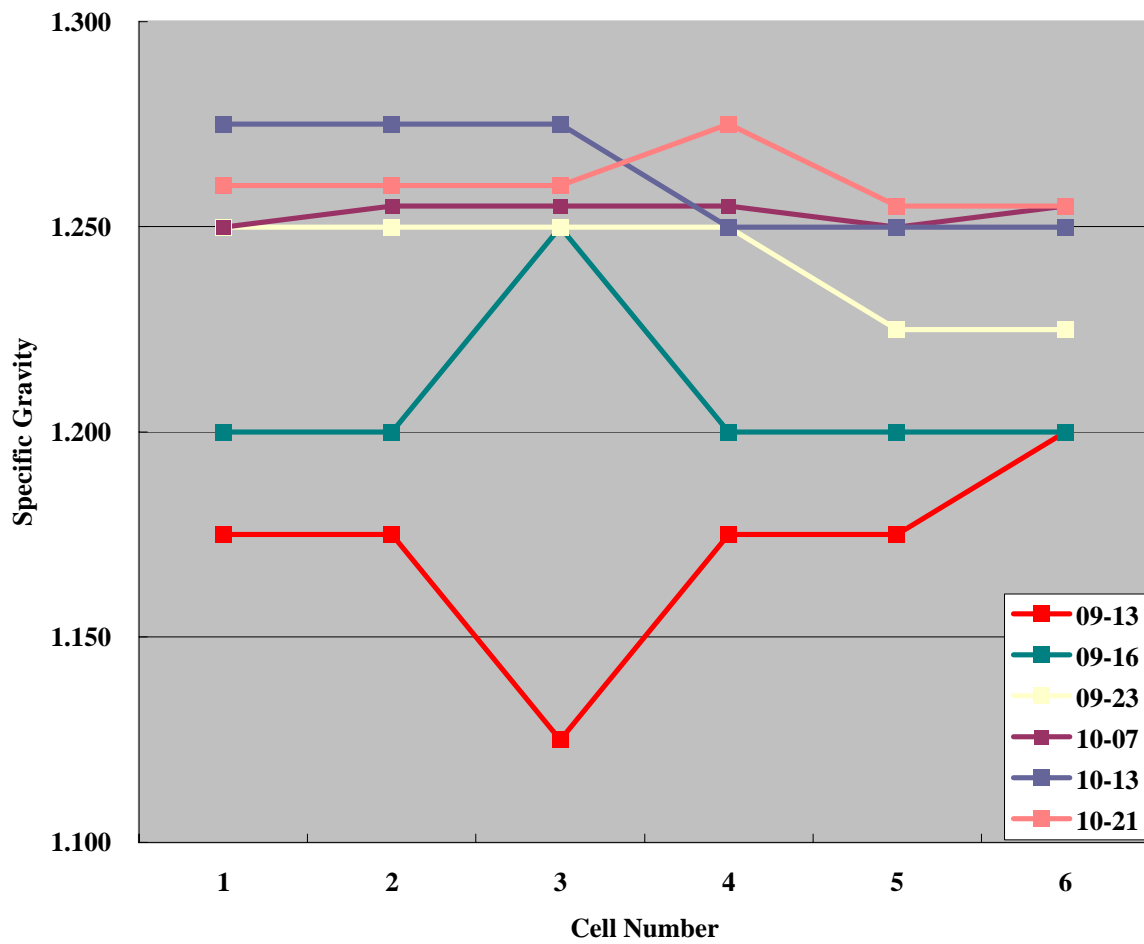
Cell / Date	09-13	09-16	09-23	09-26	09-30	10-07	10-13	10-21
1	1.175	1.200	1.250		1.250	1.275	1.260	1.250
2	1.175	1.200	1.250		1.255	1.275	1.260	1.250
3	1.125	1.250	1.250		1.255	1.275	1.260	1.265
4	1.175	1.200	1.250		1.255	1.250	1.275	1.250
5	1.175	1.200	1.225		1.250	1.250	1.255	1.265
6	1.200	1.200	1.225		1.255	1.250	1.255	1.265
Average S.G	1.171	1.208	1.242	0.000	1.253	1.263	1.261	1.258
CCA	965	950	950	1010	1115	1135	1145	1145
Voltage			13.6	12.8	13.35		13.4	

Comments

09-06-05	4D battery was brought to shop by a customer. Battery was conditioned few days by float charger at charge voltage at 13.7V
09-13-05	Nanopulser was installed after measuring Specific Gravity and CCA.
09-16-05	After three days S.G. increased from 1.171 to 1.208, but CCA decreased The CCA decreased from 965 to 950. It maybe caused by lower ambient temperature. CCA readings were taken at 1:00PM when temperature is high on 09-13, and 9:00 AM when temperature is lower on 09-16.
09-23	Steady increase in SG, but CCA did not change. Ambient temperature was low.
09-23	Charge voltage at 4:45PM was 13.6V. The charger was turned off till 9-26.
09-26	Voltage at 8:30AM was 12.8V after 2.5 days off charger, and CCA was 1010. Then, the battery was put back on float charge.
09-30	S.G. average became 1.253. Charge voltage was 13.3~4 and CCA 1115.
10-07	Increased SG on Cell #1,2,3, at 1.275, Cell#4,5,6 has been stabilized at 1.250. To see if SG of cell #4,5,6 would improve, charge voltage will be increased early next week.
10-10	Charge voltage was increased to 14V for one and half days, lowered to 13.4V on 10-11.
10-13	Measurement taken on specific gravity and voltage. It looks like the improvement have leveled off. At the beginning SG was 1.171 average. Then, in 3 weeks SG improved to 1.263. CCA improved from 965 to 1145 in 4 weeks.

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Change in Specific Gravity



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