



## **Griffon refit Propulsion Motor& generators report**

July 15, 2008

Canal Marine.  
155 Cushman Rd  
St Catherine, ONT  
L2M 6T4

Attention: Don Cressey

### **Description of propulsion #1**

**Make:** Westinghouse

**HP:** 2000/2500

**Serial Number:** 1-151424

**Frame:** EE626.6

**Volts:** 833/900 Armature, 232 Fields

**Amps:** 1910/2210

**RPM:** 171/220 Constant, 185/220 2 hours

**Type:** Q

### **Findings:**

The unit has been inspected with the following megger reading test results on all components

**Armature circuit:** 1GΩ to ground

**Field circuit:** 13GΩ to ground

**Incoming A1 Cable:** 12GΩ to ground

**Incoming A2 Cable:** 15GΩ to ground

**Incoming Field Cable:** ∞ to ground

#### **Commutator and brush condition:**

Commutator surface has been inspected and it is very smooth without any discoloration or any burnt marks. Armature core and spider were inspected as permissible and were found in acceptable condition.

Brushes have been inspected in all ten brush holders, brush wear is even throughout the brush holders.

Original brush length is 1.830", and average wear on the existing brushes is %22

Stator frame in good condition and no structural damage has been found.

Bearings in good condition

**Recommendation:**

Continue monitoring brushes wear with any convenient down time.

### **Description of propulsion #2**

**Make: Westinghouse**

**HP: 2000/2500**

**Serial Number: 2-151424**

**Frame: EE626.6**

**Volts: 833/900 Armature, 232 Fields**

**Amps: 1910/2210**

**RPM: 171/220 Constant, 185/220 2 hours**

**Type: Q**

### **Findings:**

The unit has been inspected with the following megger reading test results on all components

**Armature circuit: 1GΩ to ground**

**Field circuit: 12GΩ to ground**

**Incoming A1 Cable: 1GΩ to ground**

**Incoming A2 Cable: 12GΩ to ground**

**Incoming Field Cable: ∞ to ground**

**Commutator and brush condition:**

Commutator surface has been inspected and it is very smooth without any discoloration or any burnt marks. Armature core and spider were inspected as permissible and were found in acceptable condition.

Brushes have been inspected in all ten brush holders, brush wear is even throughout the brush holders.

Original brush length is 1.830", and average wear on the existing brushes is %20

Stator frame in good condition and no structural damage has been found.

Bearings in good condition

**Recommendation:**

Continue monitoring brushes wear with any convenient down time

### **Westinghouse generator #1**

**Make: Westinghouse**

**KW: 1032/1290 Serial Number: 1-155108**

**Frame: CC216.5**

**Volts: 833/900 Armature, Excitation 206**

**Amps: 1238/1432**

**RPM: 750**

**Type: Q**

### **Findings:**

The unit has been inspected with the following megger reading test results on all components

**Armature circuit: 10MΩ to ground**

**Field circuit: 9MΩ to ground**

**Incoming A1 Cable: 3GΩ to ground**

**Incoming A2 Cable: 3GΩ to ground**

**Incoming Field Cable: ∞ to ground**

**Commutator and brush condition:**

Commutator surface has been inspected and it is smooth without any discoloration or any burnt marks. Armature core and spider were inspected as permissible and were found in acceptable condition.

Brushes have been inspected in all six brush holders, brush wear is even throughout the brush holders.

Original brush length is 3.00", and average wear on the existing brushes is %14

Stator frame in good condition and no structural damage has been found.

Bearings in good condition

**Recommendation:**

The unit is extremely contaminated.

The unit requires be removing and reconditioning.

**Westinghouse generator #2**

Make: Westinghouse

KW: 1032/1290 Serial Number: 2-155108

Frame: CC216.5 Volts: 833/900 Armature, Excitation 206

Amps: 1238/1432 RPM: 750

Type: Q

**Findings:**

The unit has been inspected with the following megger reading test results on all components

Armature circuit: 3MΩ to ground

Field circuit: 10MΩ to ground

Incoming A1 Cable: 4GΩ to ground

Incoming A2 Cable: 3GΩ to ground

Incoming Field Cable: ∞ to ground

**Commutator and brush condition:**

Commutator surface has been inspected and it is smooth without any discoloration or any burnt marks. Armature core and spider were inspected as permissible and were found in acceptable condition.

Brushes have been inspected in all six brush holders, brush wear is even throughout the brush holders.

Original brush length is 3.00", Brushes seems like been replaced recently but some brushes and holders are missing as per follow.

Facing commutator at 12.00 O'clock (1) brush holder is missing.

Facing commutator at 2.00 O'clock (1) brush holder is missing.

Facing commutator at 4.00 O'clock (1) brush is missing.

Facing commutator at 8.00 O'clock (1) brush is missing.

Facing commutator at 10.00 O'clock (1) brush holder is missing.

Stator frame in good condition and no structural damage has been found.

Bearings in good condition

**Recommendation:**

The unit is extremely contaminated.

**The unit requires be removing and reconditioning.**

**Westinghouse generator #3**

**Make: Westinghouse**

**KW: 1032/1290 Serial Number: 3-155108**

**Frame: CC216.5 Volts: 833/900 Armature, Excitation 206**

**Amps: 1238/1432 RPM: 750**

**Type: Q**

**Findings:**

The unit has been inspected with the following megger reading test results on all components

**Armature circuit: 4M $\Omega$  to ground**

**Field circuit: 5.5M $\Omega$  to ground**

**Incoming A1 Cable: 2G $\Omega$  to ground**

**Incoming A2 Cable: 3G $\Omega$  to ground**

**Incoming Field Cable:  $\infty$  to ground**

**Commutator and brush condition:**

**Commutator surface has been inspected and it is smooth without any discoloration or any burnt marks. Armature core and spider were inspected as permissible and were found in acceptable condition.**

**Brushes have been inspected in all six brush holders, brush wear is even throughout the brush holders.**

**Original brush length is 3.00", and average wear on the existing brushes is %6**

**Stator frame in good condition and no structural damage has been found.**

**Bearings in good condition**

**Recommendation:**

**The unit is extremely contaminated.**

**The unit requires be removing and reconditioning.**

**Westinghouse generator #4**

**Make: Westinghouse**

**KW: 1032/1290 Serial Number: 4-155108**

**Frame: CC216.5 Volts: 833/900 Armature, Excitation 206**

**Amps: 1238/1432 RPM: 750**

**Type: Q**

**Findings:**

The unit has been inspected with the following megger reading test results on all components

**Armature circuit: 3M $\Omega$  to ground**

**Field circuit: 10M $\Omega$  to ground**

**Incoming A1 Cable: 4GΩ to ground**  
**Incoming A2 Cable: 3GΩ to ground**  
**Incoming Field Cable: ∞ to ground**

**Commutator and brush condition:**

**Commutator surface has been inspected and it is smooth without any discoloration or any burnt marks. Armature core and spider were inspected as permissible and were found in acceptable condition.**

**Brushes have been inspected in all six brush holders, brush wear is even throughout the brush holders.**

**Original brush length is 3.00", Brushes seem like they have been replaced recently but some brushes and holders are missing as per follow.**

**Facing commutator at 12.00 O'clock (1) brush is missing.**

**Facing commutator at 2.00 O'clock (1) brush is missing.**

**Facing commutator at 4.00 O'clock (1) brush is missing.**

**Facing commutator at 8.00 O'clock (1) brush is missing.**

**Facing commutator at 10.00 O'clock (1) brush holder is missing.**

**Stator frame in good condition and no structural damage has been found.**

**Bearings in good condition**

**Recommendation:**

**The unit is extremely contaminated.**

**The unit requires be removed and reconditioning.**

**Regards**

**Victor Khodian**

**Team Leader-Service center operation**