

# MINNESOTA STREETCAR MUSEUM

## ANNUAL MEETING

APRIL 3, 2021

### CHIEF MECHANICAL OFFICER'S REPORT

#### OPERATIONAL STREETCAR STATUS

##### CHSL:

###### TCRT 1300

- Car has completed preseason inspections and is ready to support the start of training activities.

###### TCRT 322

- Car has completed preseason inspections and maintenance and is ready to support the start of training activities.
- Front bumper needs to be reinstalled on the car, but that will not impact training activities. The bumper will be installed on the car in time for regular service at the beginning of July.

##### ESL:

###### DSR 265

- Car has completed preseason inspections and is ready to support the start of training activities.
- Some maintenance (topping off oil levels) and general cleaning will be done before training starts.

###### DSR 78

- Car might be available for training at the beginning of May. Best to assume that the earliest the car will be available is July 1.
- Working with restoration crew to determine the work still needed to get the rebuilt 78 controller installed, tested, and approved for operation. The question of what needs to be done to refurbish 78's second controller to allow the car to be operational for the 2021 season has yet to be determined.

# **NON-OPERATIONAL STREETCAR STATUS**

## **TCRT 1239 TRUCK AND BACKDATING PROJECT**

- Overall project has two main goals
  1. Replace current trucks with trucks that replicate the Baldwin No. 5 trucks that were originally installed on this car when it was first built.
  2. "Backdate" the look and equipment on the car as much as possible to be consistent with the way it was outfitted in the early 1920's.
- Major truck components (equalizers, pedestals, cross members, etc.) will be fabricated from new material to build the new trucks. Drawings are complete and fabrication dates are being scheduled.
- Journal boxes, wheels, and axles will be refurbished for use on new trucks.
- Two GE-241B motors bought from Halton County Radial Railroad museum were refurbished and delivered to CHSL. The remaining two motors will be refurbished as the museum's future financial position allows.
- New coil springs for truck received. They will be painted green to match truck color.
- New leaf springs for truck ordered.
- New, non-functional Baker installed in the car. Replicates coal-fired heater used in the 1920's period. Three electric heaters installed in it to heat motorman's area.
- Installed new, roof jack for Baker heater that was fabricated at no cost by the Sheet Metal Workers Training Center in White Bear Lake.
- Interior smoke pipe and perforated chimney jacket for Baker heater almost complete.
- Added 120 VAC circuit and outlets to interior. These will be used to power special event interior decorations (Halloween, Christmas, etc.) and additional equipment.
- Interior updated with period car cards and LED light bulbs to replicate 1920's style.
- Operator's door repainted green to match 1920's style. Rear gate, some interior parts, and trim repainted. More detail work on interior will be done to give the car a more historically consistent appearance.
- Transverse (i.e. "peanut") row seat recaned. Another seat cushion replaced
- Headlight replaced with 1920's style.

## **WINONA POWER AND LIGHT COMPANY #10 MOTOR REBUILD PROJECT**

- Overall project has two main goals
  1. Restore GE 800 motor (1890's vintage) to operational condition.
  2. Upgrade motor power supply system to prevent similar incidents in the future.
- Motor shipped to AC Electric in Bangor, Maine, for repairs.
- After complete disassembly, cleaning and inspection, AC Electric will rewind armature, remachine and/or replace worn components, install new bearings, repair motor frame as needed, perform other repairs needed to return motor to operational status, and electrically test motor after reassembly.
- Swiger Coil in Cleveland, Ohio, is working with AC Electric to fabricate new armature coils for the motor. Once the correct geometry is found, AC Electric will complete work on the motor. Expected completion date for the motor is to be determined.
- When the completed motor is returned to Minnesota, it will take several months to reinstall the motor in the streetcar and have the car ready for operation.