

2023 MSM ANNUAL MEETING

MECHANICAL DEPARTMENT
REPORT

MARCH 23, 2023

MSM ANNUAL MEETING

◎ CHSL 2022 ACCOMPLISHMENTS

➤ **TCRT 1300**

- Addressed Numerous Maintenance Issues Without Impacting Schedules
- Rewired Heater Circuits to Balance Load on All Circuits
- Upgraded Door Interlock System
- Redesigned and Standardized Brake Shoe Return Springs
- New Brake Shoes (Grey Iron) Ordered
- Created New Design for Trolley Wheel Harp

➤ **TCRT 322**

- Upgraded Door Interlock System
- Upgraded Battery Charging System
- Repairing Rusted Portions of Body Exterior

◎ CHSL 2022 ACCOMPLISHMENTS

➤ **SPEEDER**

- 2.5 HP New Speeder Motor vs. 0.75 HP Old Speeder Motor (@ 36 VDC)
- 333% Power Increase
- Upgraded Drive System
- Can Pull 3 Car “Work Train” Plus 3 Person Crew

➤ **TOWER CAR**

- Improved Safety Rails for Personnel Working on Overhead
- Uses Scissors Lift to Raise Top Platform
- Upgraded Access to Top Platform
- Old Tower Car Sold to Capital City Trolley Museum

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NEW SPEEDER AND TOWER CAR



◎ CHSL 2022 ACCOMPLISHMENTS

➤ TCRT 1239

- Completed Back-Dating and Standardization of Car to 1920's Era Appearance
- Replica Baker Heater Installed in Motorman's Area
- Upgraded Interior Lights to "Edison" Style LED's
- All Parts Fabricated for New Trucks to Duplicate Look of Original Baldwin #5 Trucks
- Four GE-241 B Motors Rebuilt for Use on New Trucks
- Starting Build of First Replacement Truck

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1239 ORIGINAL TRUCK FRAME



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1239 NEW TRUCK FRAME INITIAL WELDING



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NEW 1239 MOTORS



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ESL 2022 ACCOMPLISHMENTS

➤ **DSR 265**

- Refurbished/Upgraded Door Operator Mechanism
- Upgraded Rear Brake Controller & Switch Mechanisms
- Supported 100% of All ESL Regular Operations in 2022

➤ **DSR 78**

- Completely Rewired, Updated, and Improved “A” End Controller
- Improved Shut off Contacts on Both Controllers
- Repainted Car Roof Canvas (2 Coats)
- Improved Ditch Light Mounting System
- Upgraded Battery Charging System

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◎ ESL 2022 ACCOMPLISHMENTS

➤ **MVPS (WINONA) 10**

- GE-800 Motor Rebuild in Progress. Expect May Delivery to ESL
- Window Bars Sent Out for Powder Coating

➤ **MESABA 10**

- Cleaned, Lubricated, and Refurbished 2 Japanese Trucks
- Installed Trucks Under Car Body (First Time in 95 Years)
- Cleaned Out Trash and Unwanted Items from Car Body
- Repositioned Car to Prepare for Starting Restoration

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MVPS (WINONA) 10 GE-800 ARMATURE REWINDING



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MESABA 10 MOVE



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MESABA 10 MOVES OUT OF CARBARN



◎ ESL 2022 ACCOMPLISHMENTS

➤ TOWER CAR

- Added New Shelving
- Reorganized and Decluttered Existing Materials on Car