

# TUNING UP YOUR ROLLING STOCK



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2019

# TUNING UP YOUR ROLLING STOCK

- Couplers
- Trucks
- Wheels
- Weight
- Tools

# What is the need?

- Surveyed layout owners. What do you find is the cause of non-operator caused failures
  - 29% misaligned couplers
  - 24% Uncoupling dissimilar couplers
  - 11% other coupler problems
  - 8% trucks too tight or loose
  - 5% Dirty wheels
  - 4% Wheel gauge
  - 4% Wheels not freerolling
  - 1% Car weight

# Couplers

- Standardize
  - Kadee vs Kadee Compatible
  - Plastic Memory
  - Plastic Strength
  - Kadee conversion list
  - Standard Head vs Scale Head



**Kadee®  
#28 plastic  
couplers**  
12.3 lbs for  
over 24 hrs.



**Kadee®  
#58's**  
12.3 lbs for  
over 24 hrs.



**"Knockoff"**

**"Knockoff"**

3.0 lbs for  
1-2 Sec.



**"Knockoff"**

**"Knockoff"**

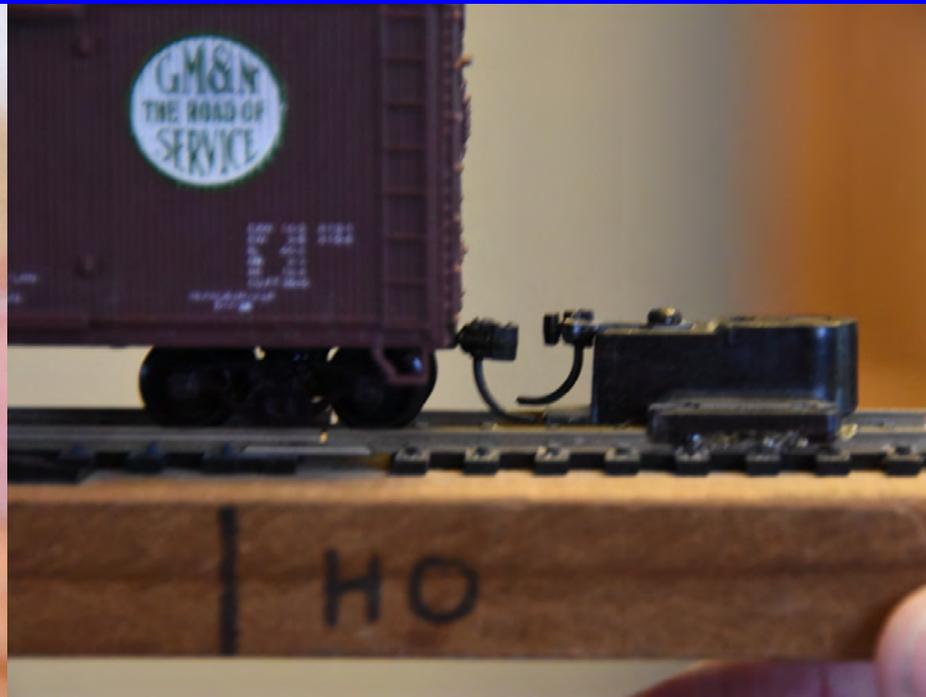
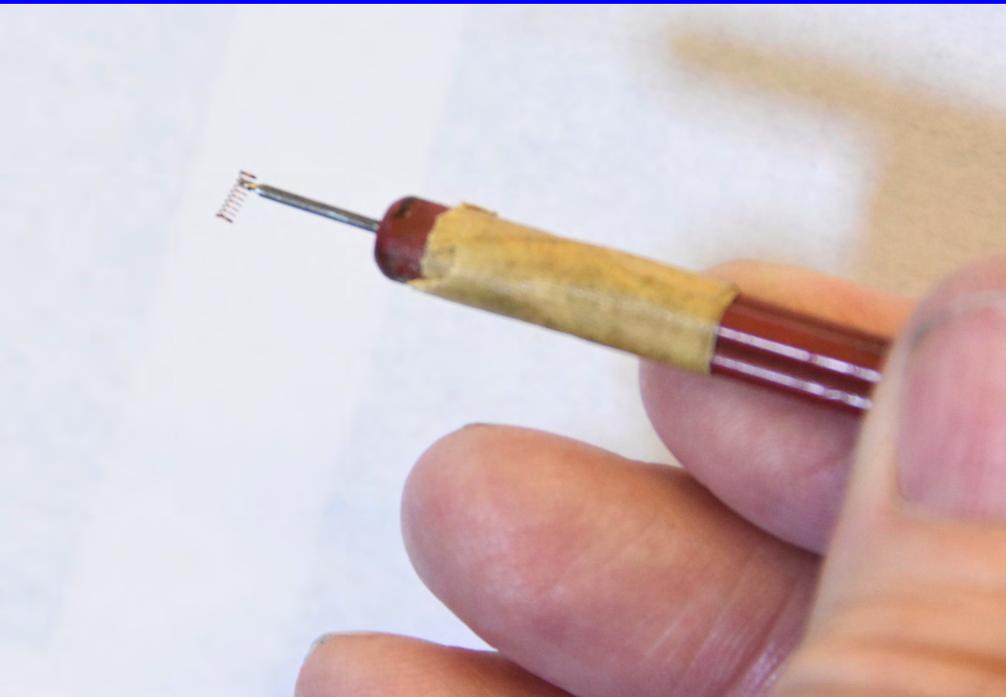
3.0 lbs for  
1-2 Sec.

The spring  
popped out  
at less than  
2.0 lbs



# Couplers

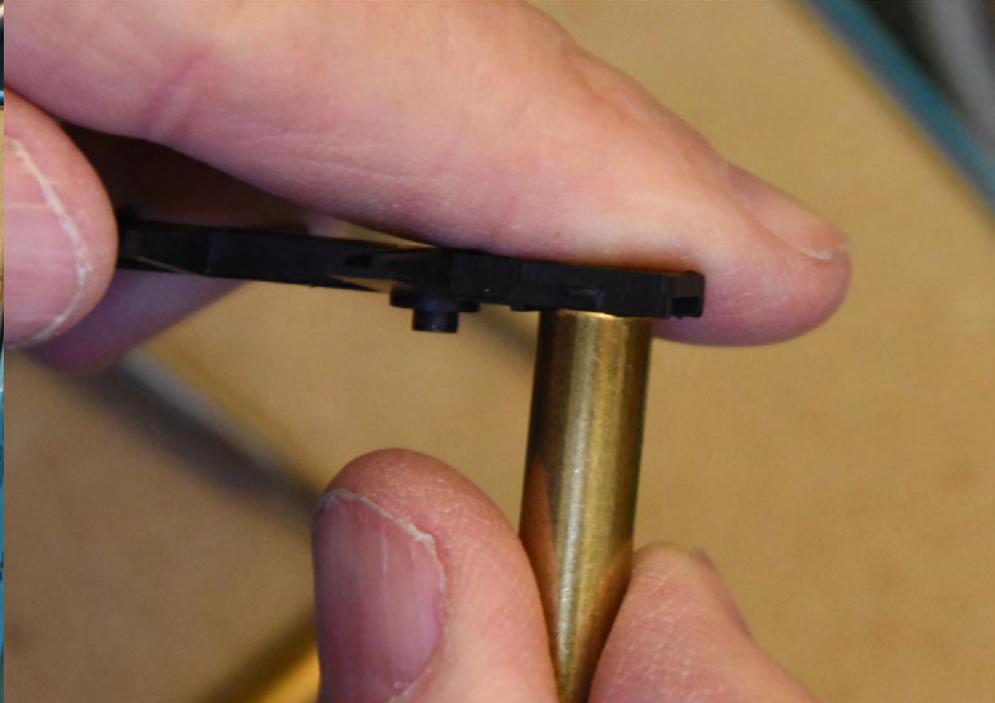
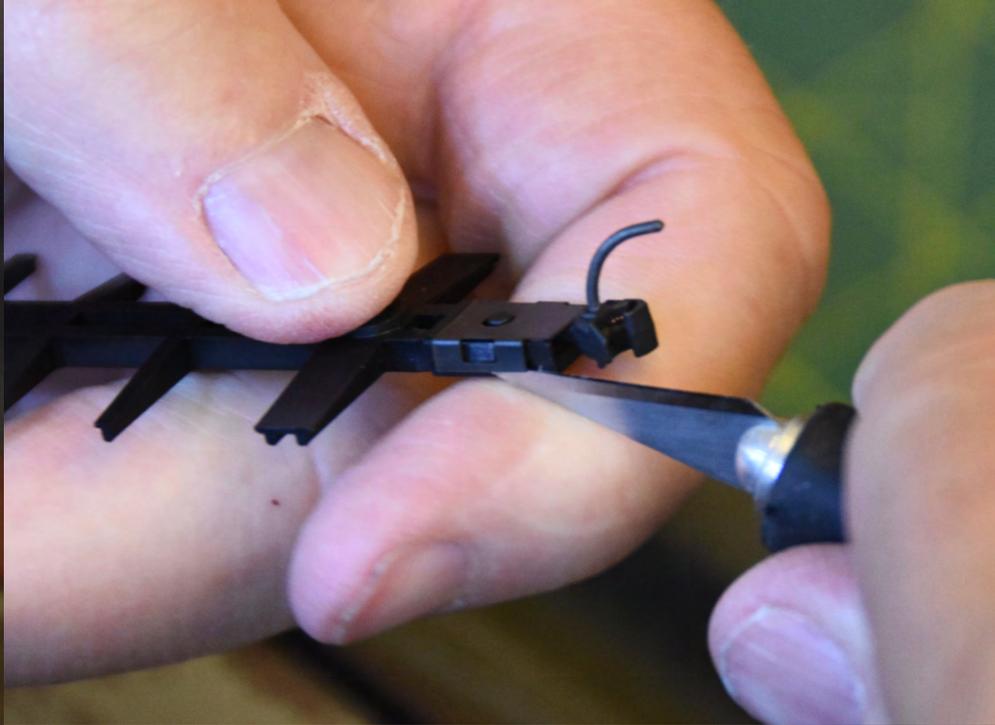
- Coupler Height
- Trip Pin
- Knuckle Spring



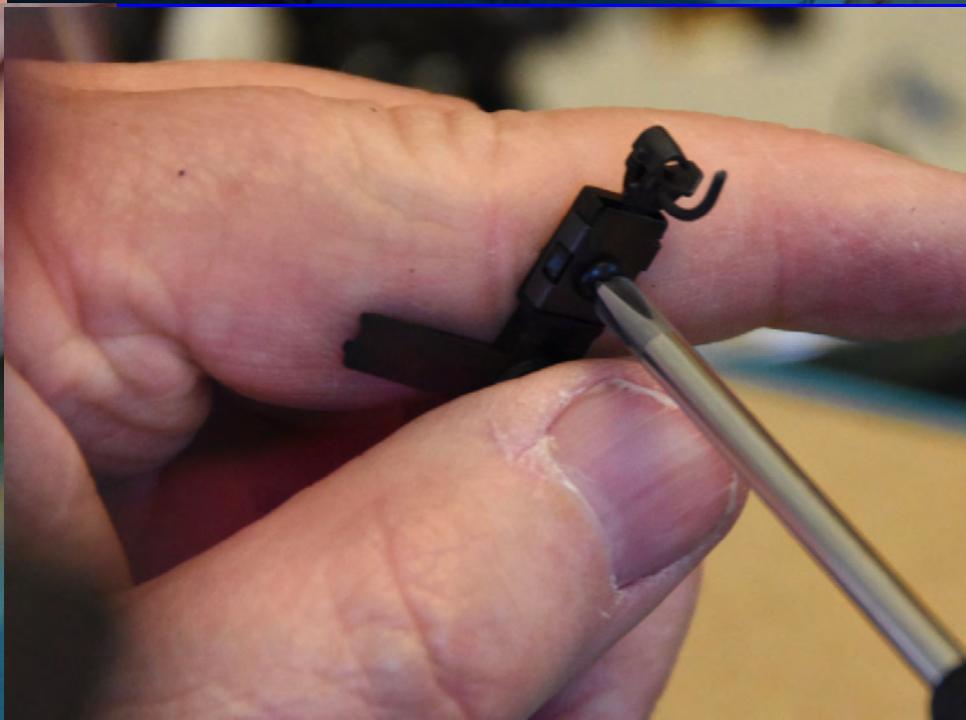
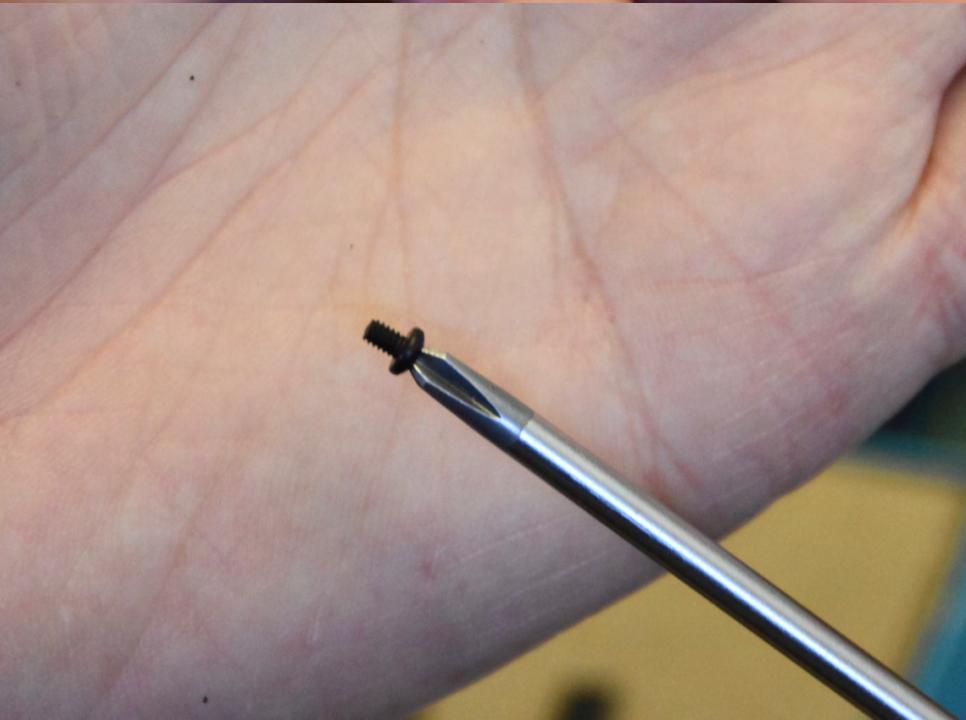
# Couplers

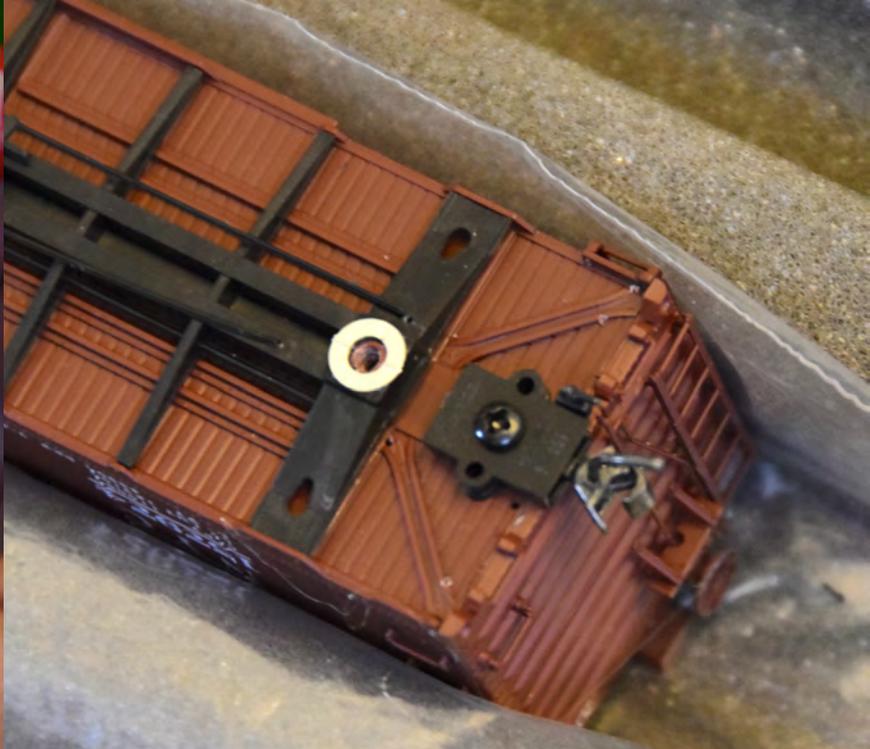
- Installation
  - Mount securely, Do not rely on friction pin or Athearn clips
  - A-Line Drill and Tap tools.









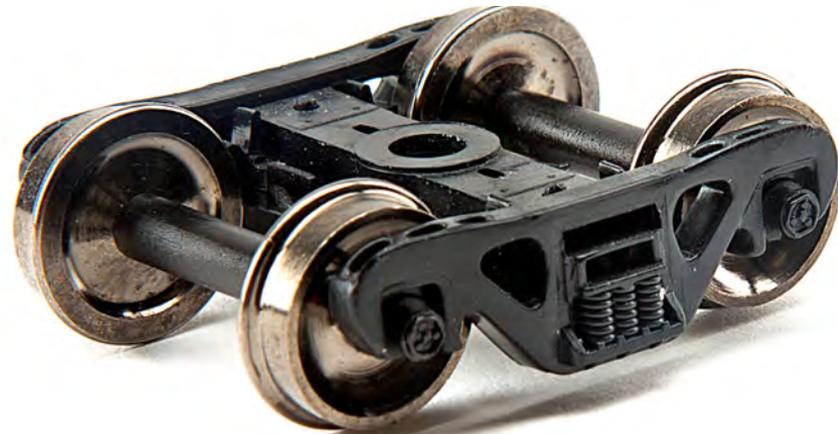
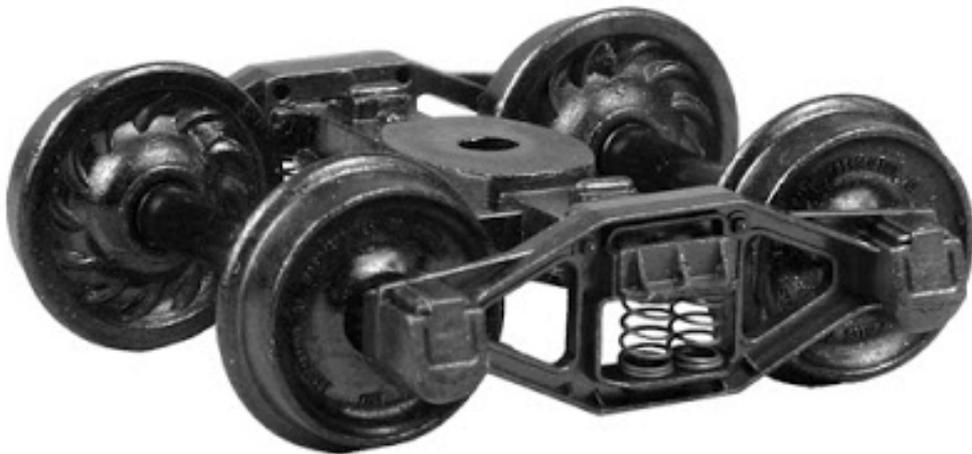






# Trucks

- Sprung or 1 piece



# Trucks

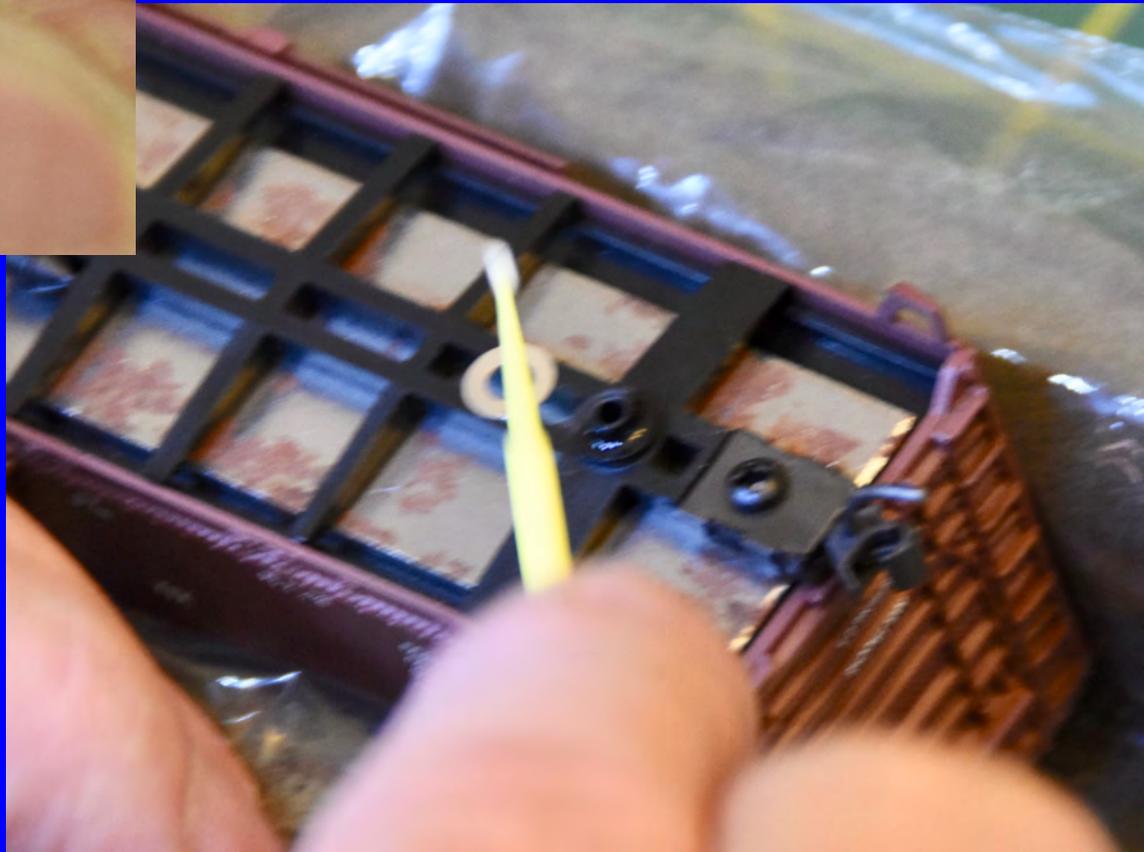
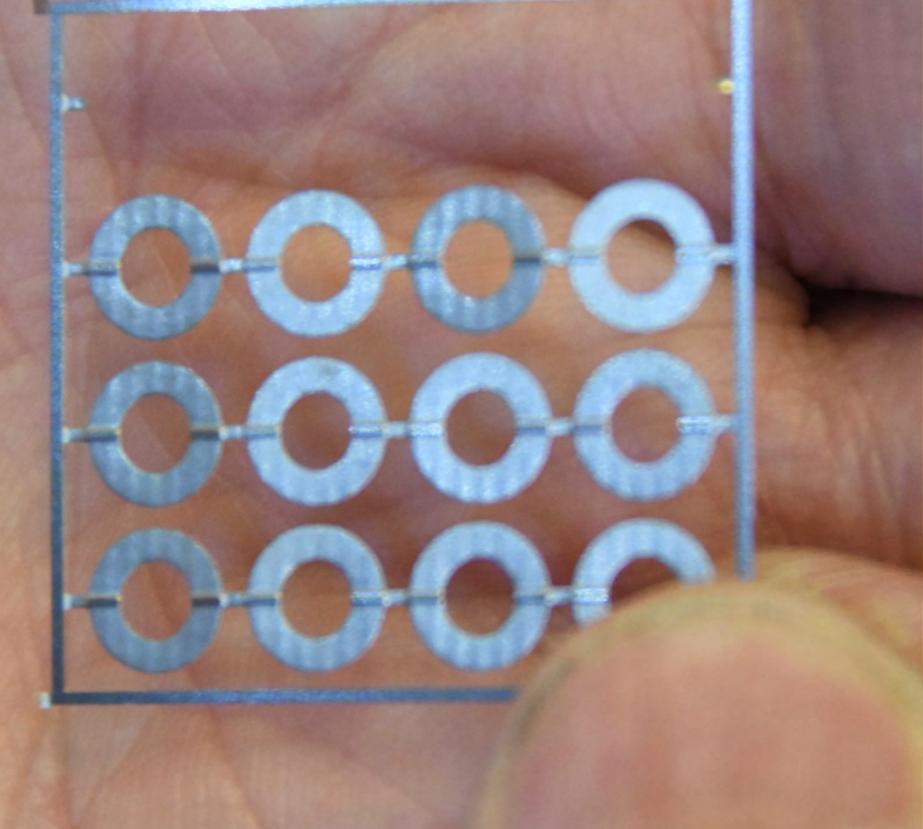
- Inspection
  - Junk
  - Flashing
  - Warped
- Truck Tuner

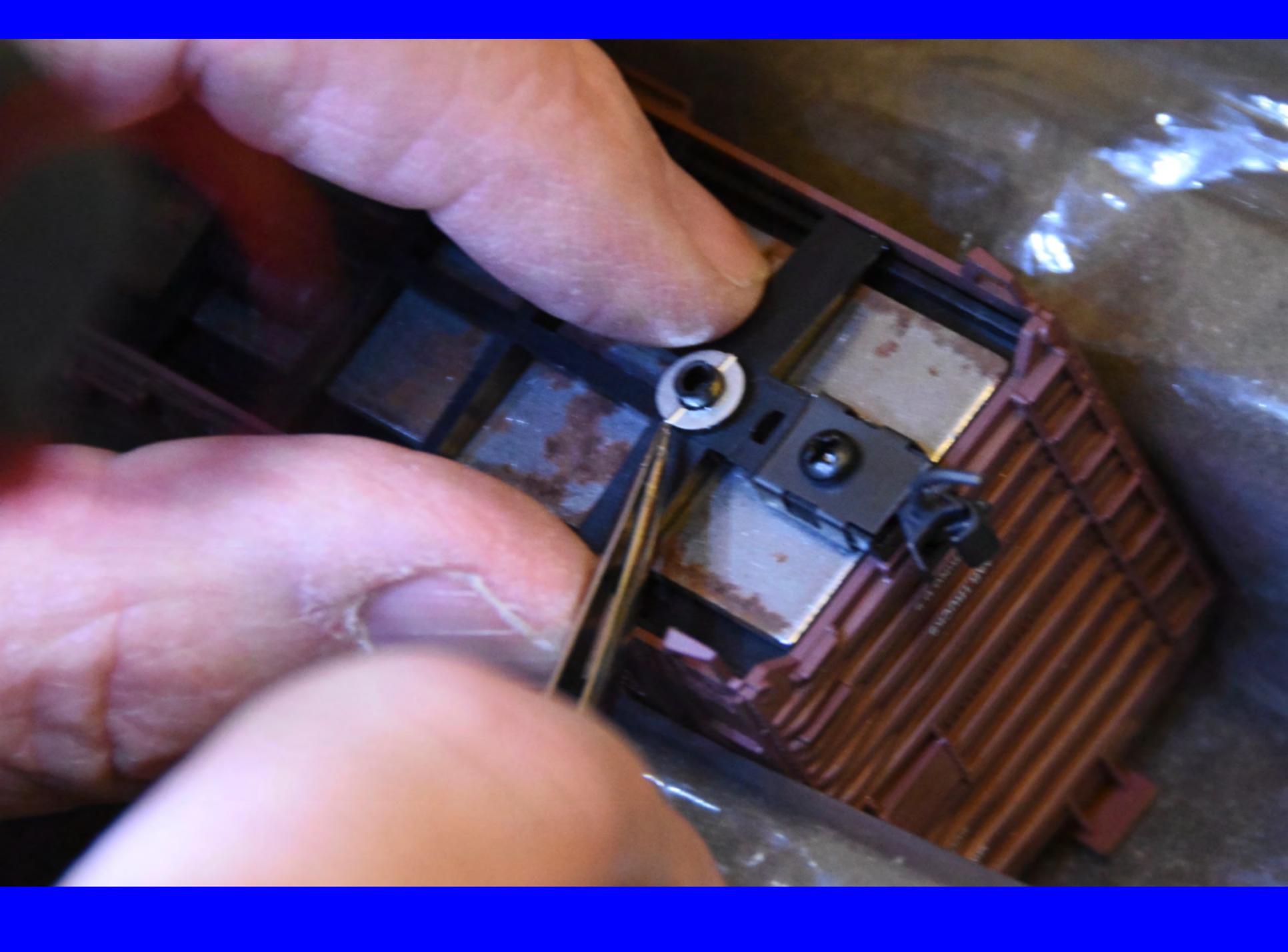




# Trucks

- 3 point Mount
  - 1 truck just swivels
  - 1 truck rocks
- Truck Washers for Gimbal Effect
  - 1 truck rocks fore and aft
  - 1 truck rocks side to side
- NO FRICTION PINS - SCREWS ONLY



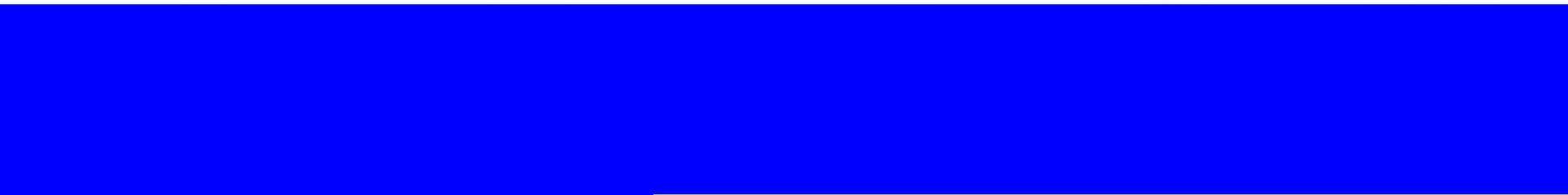






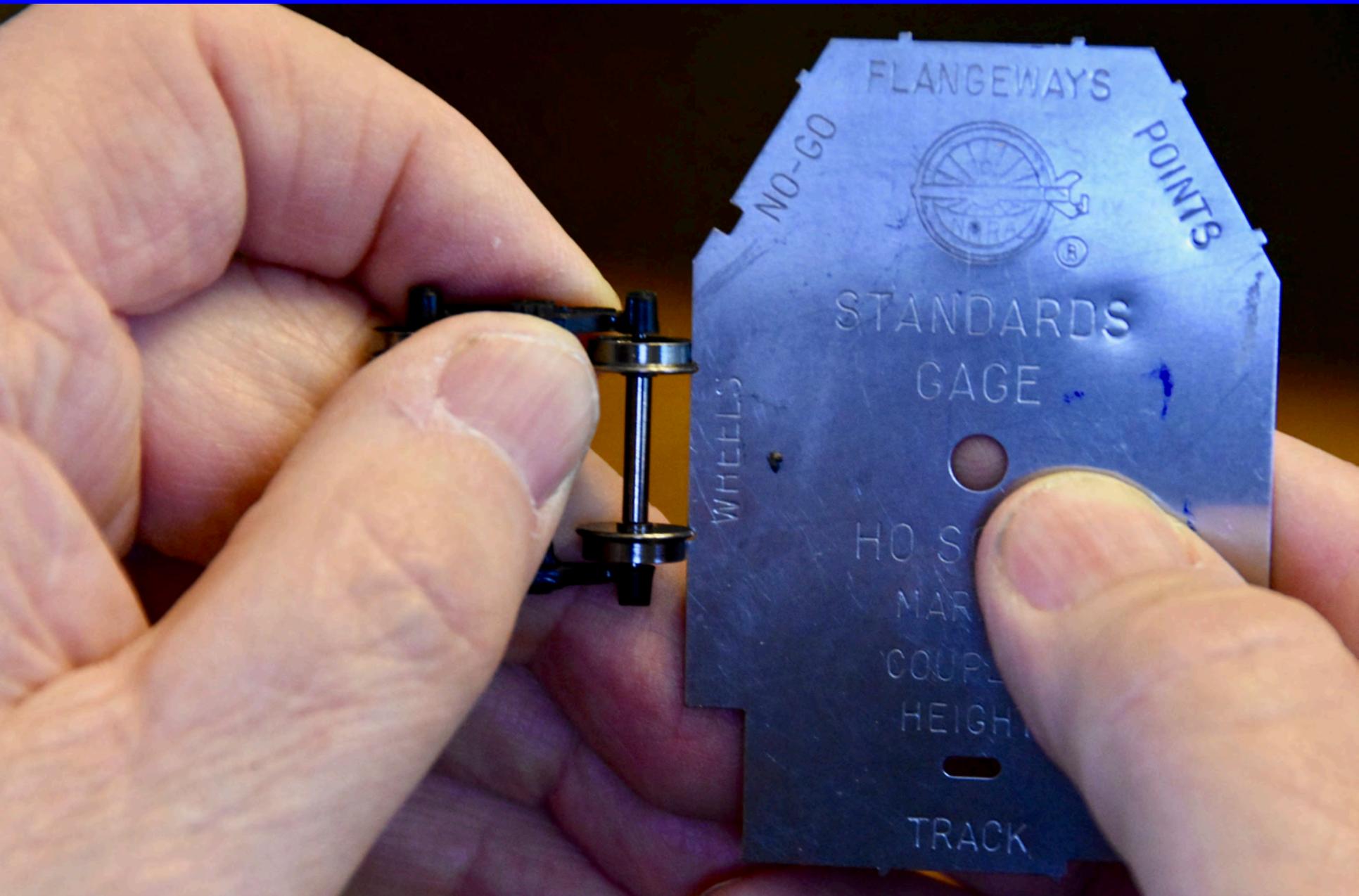
# Wheels

- Plastic
  - Light weight
  - Dirt Build up, hard to clean
- Metal
  - Weight down low
  - Less dirt, easy to clean
  - Resistors for detection circuits



# Wheels

- NMRA gauge
- Axel lengths
  - Reboxx wheels
- Test Roll
  - Friction
  - Wobble



FLANGEWAYS

NO-GO

POINTS



STANDARDS  
GAGE

WHEELS

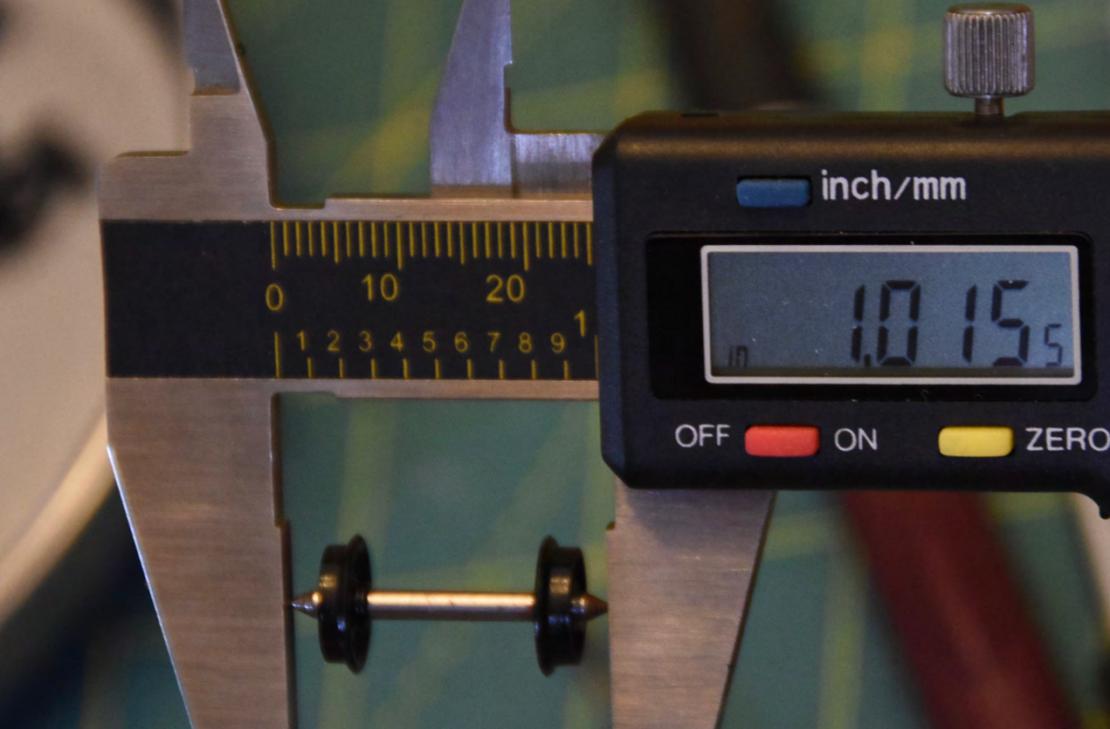
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MAR

COUPL

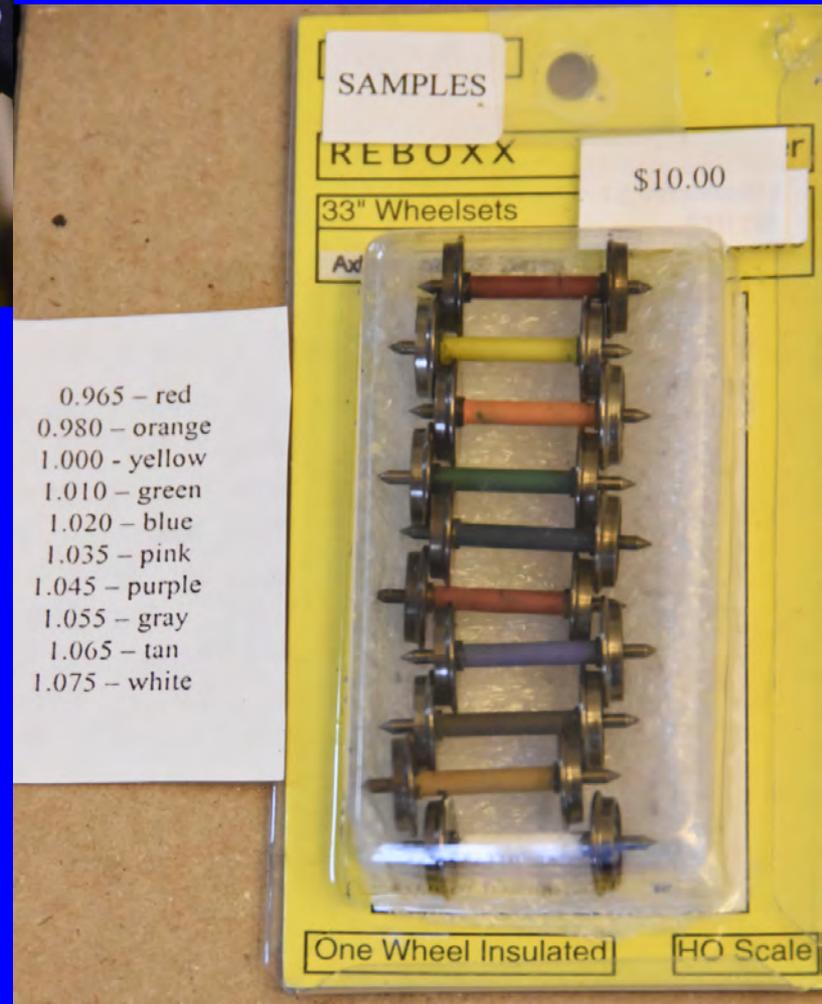
HEIGHT

TRACK



# Axle Lengths

- 0.965 - red
- 0.980 - orange
- 1.000 - yellow
- 1.010 - green
- 1.020 - blue
- 1.035 - pink
- 1.045 - purple
- 1.055 - gray
- 1.065 - tan
- 1.075 - white



# Car Weight

- Balance
- NMRA Standard ??
- Too Heavy
  - Shorter trains
  - Derailments, String lining
- Too Light
  - Derailments, String lining
  - Train handling



TARE

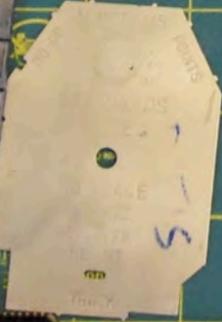
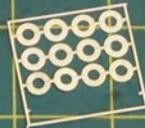
ZERO

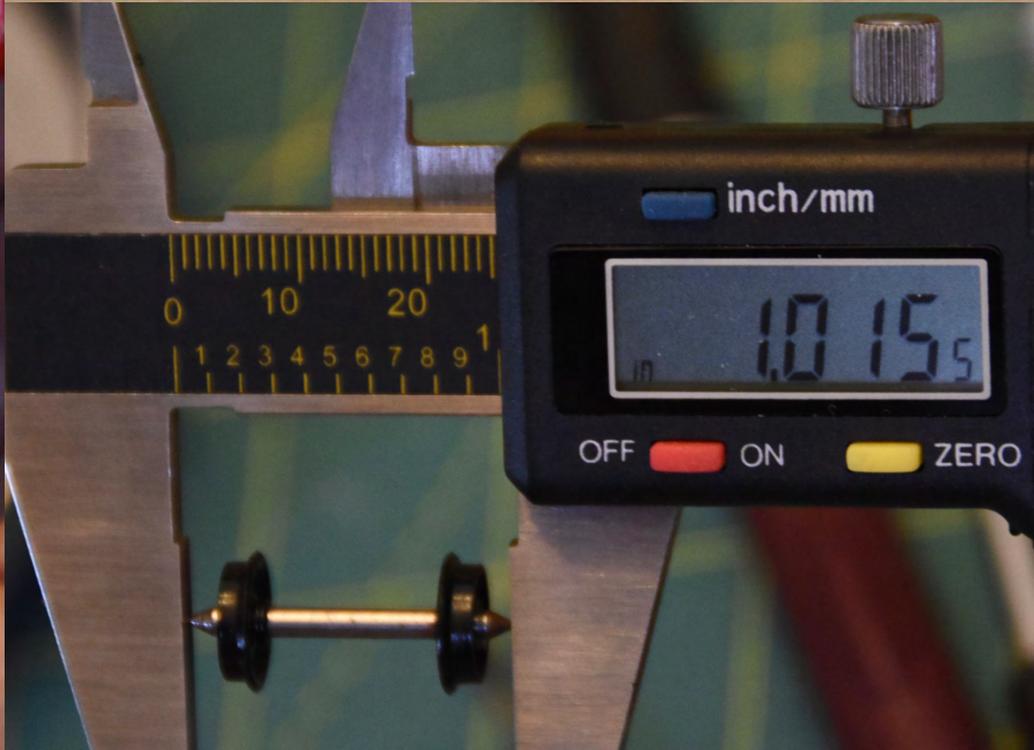
OFF

ON

1/10g  
7gm  
1/10g  
7gm  
1/10g  
7gm



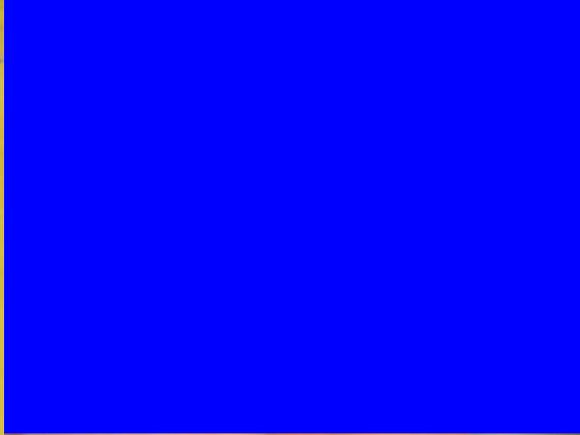


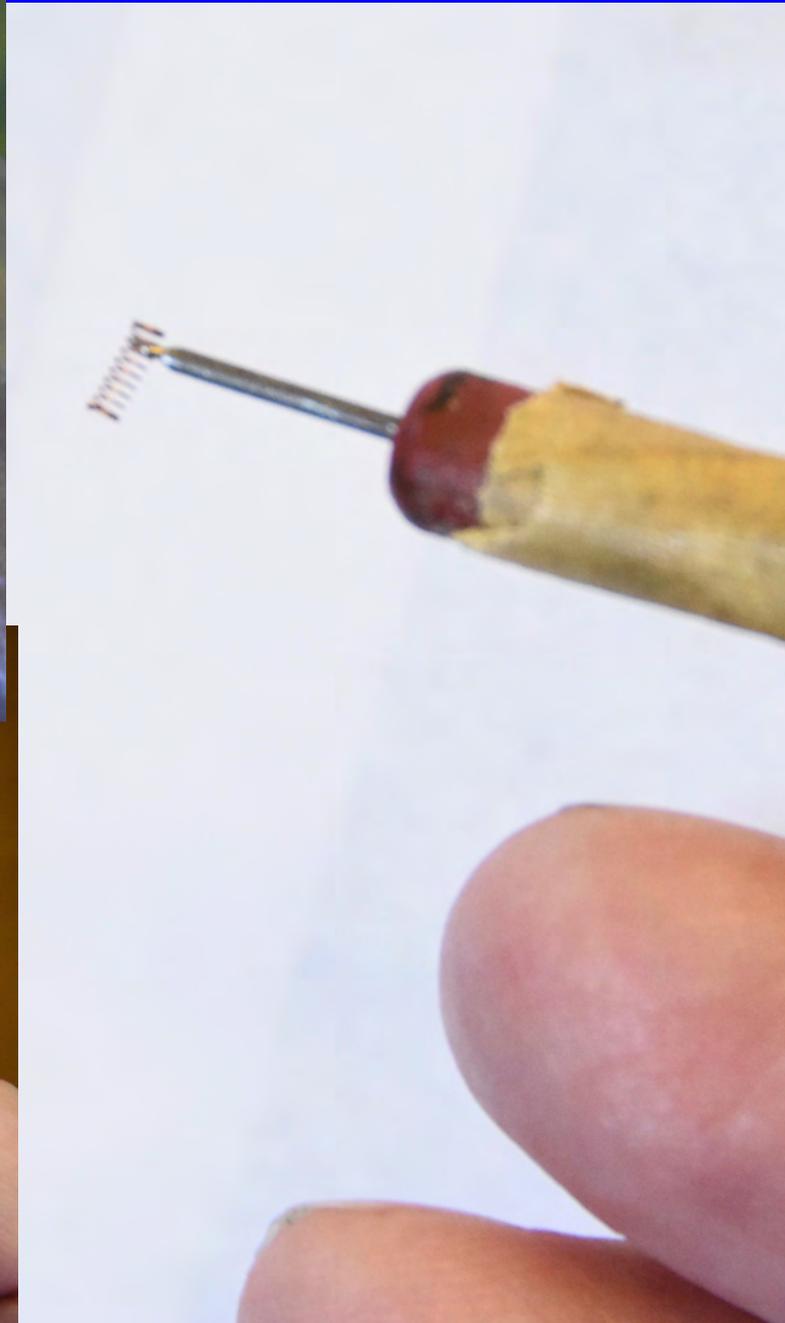
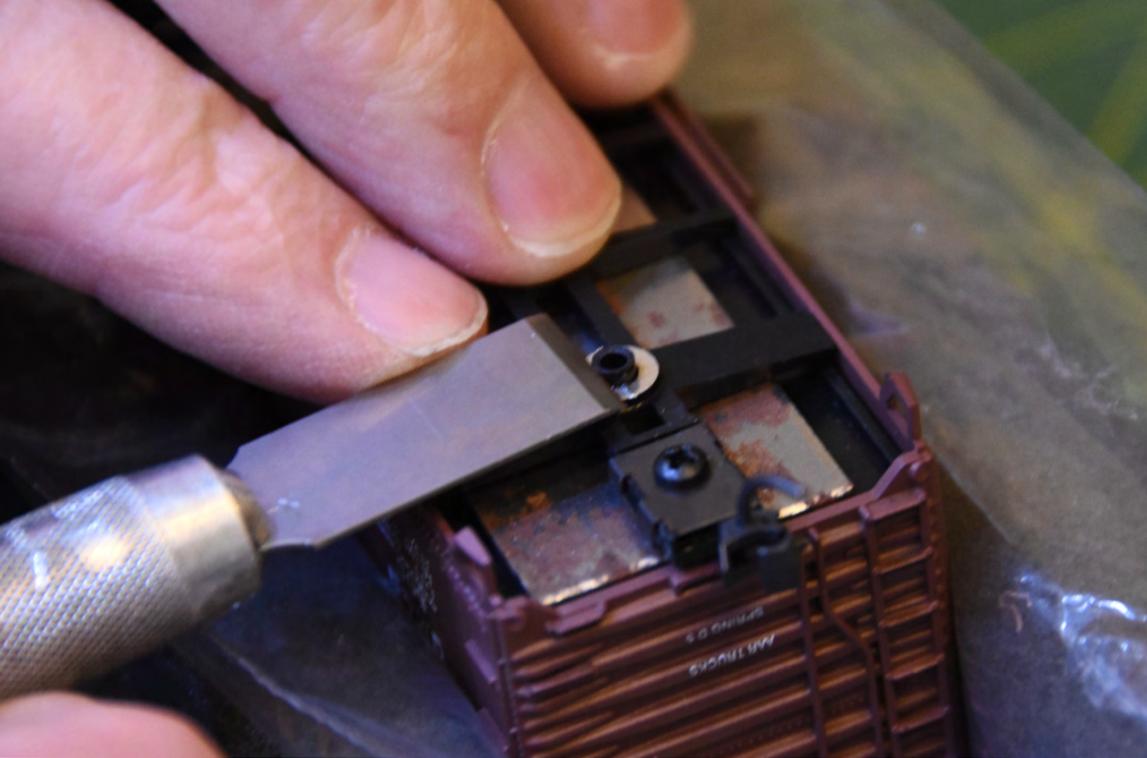














**THE END**

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