

# CEPM Program Overview



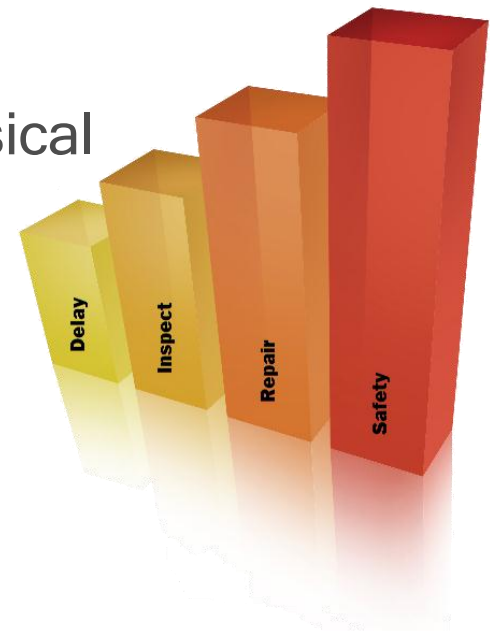
# The Cost of Defects

**Injury and Damage** - reducing these costs is the primary objective

**Delays** - even minor derailments and failures can cause operational delays

**Inspection** - major defects can require physical inspection of a large portion of the fleet to identify if issues exist

**Repair** - replacement of defects includes component cost, shop time, as well as lost service time for equipment





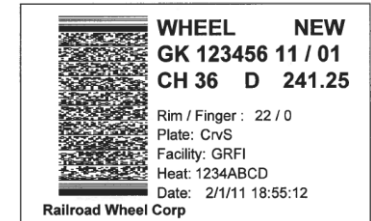
# Primary System Benefits

- Ability to quickly identify all registered components matching specified defect criteria
- Identify Equipment with defective components applied

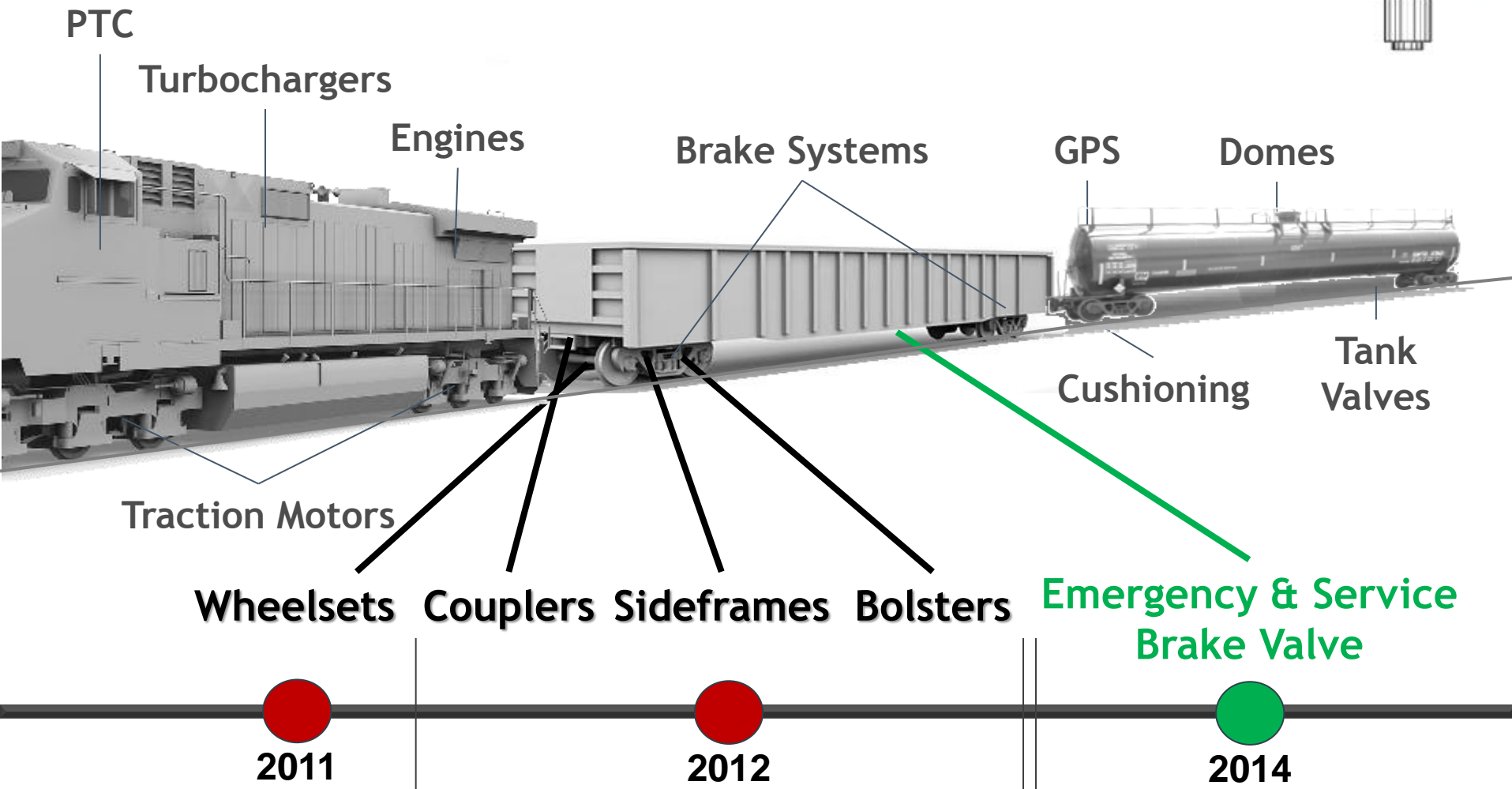
# Secondary Benefits



- Efficiencies and Data Quality through Barcoding
- Analyze data to Identify Defects
- Industry Benchmarks and Analysis



# Current and Future Components



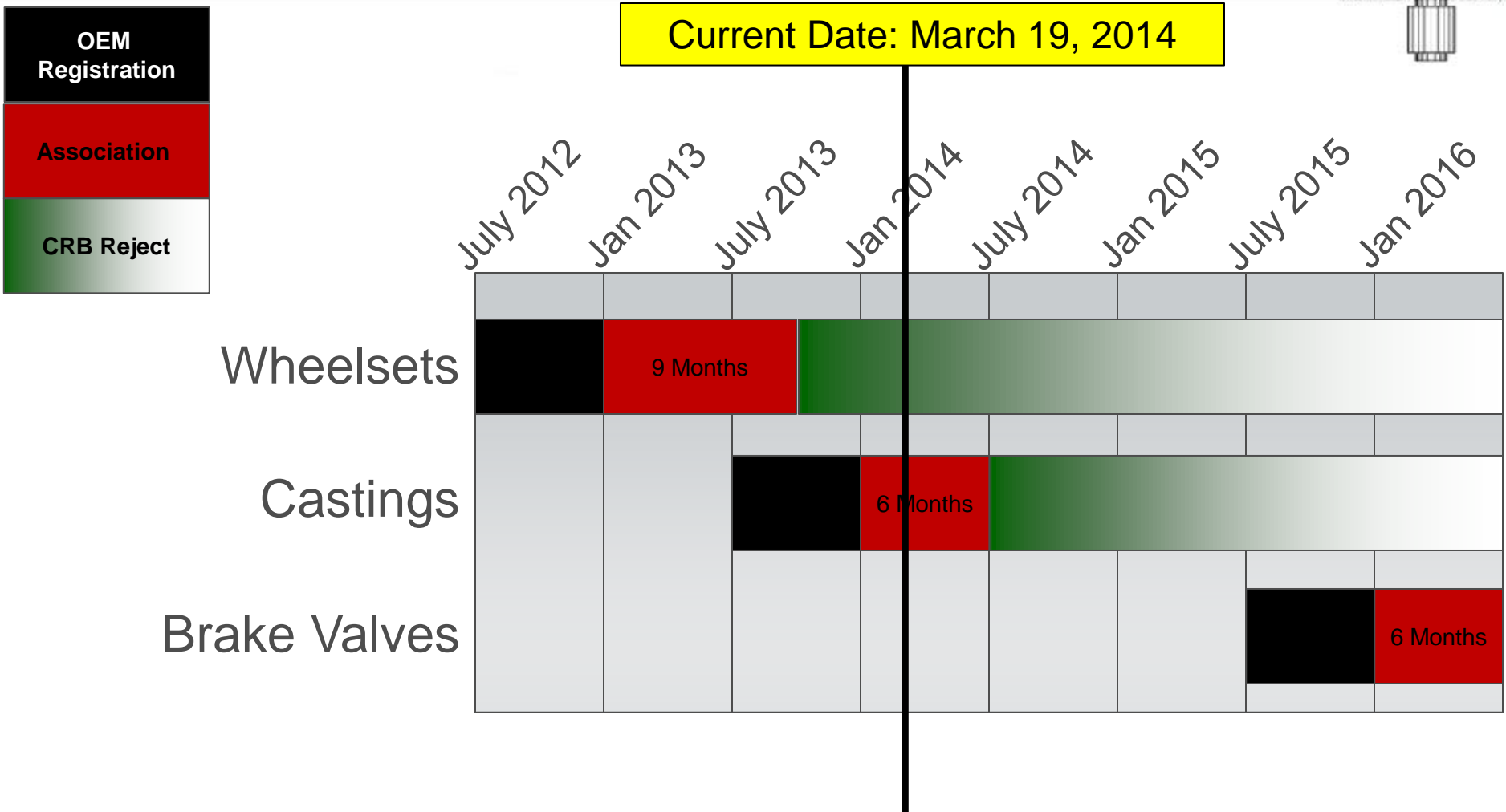
# Phases of Implementation



- Project Selection
- Development
- OEM Registration
- Association
- CRB Mandatory Edits

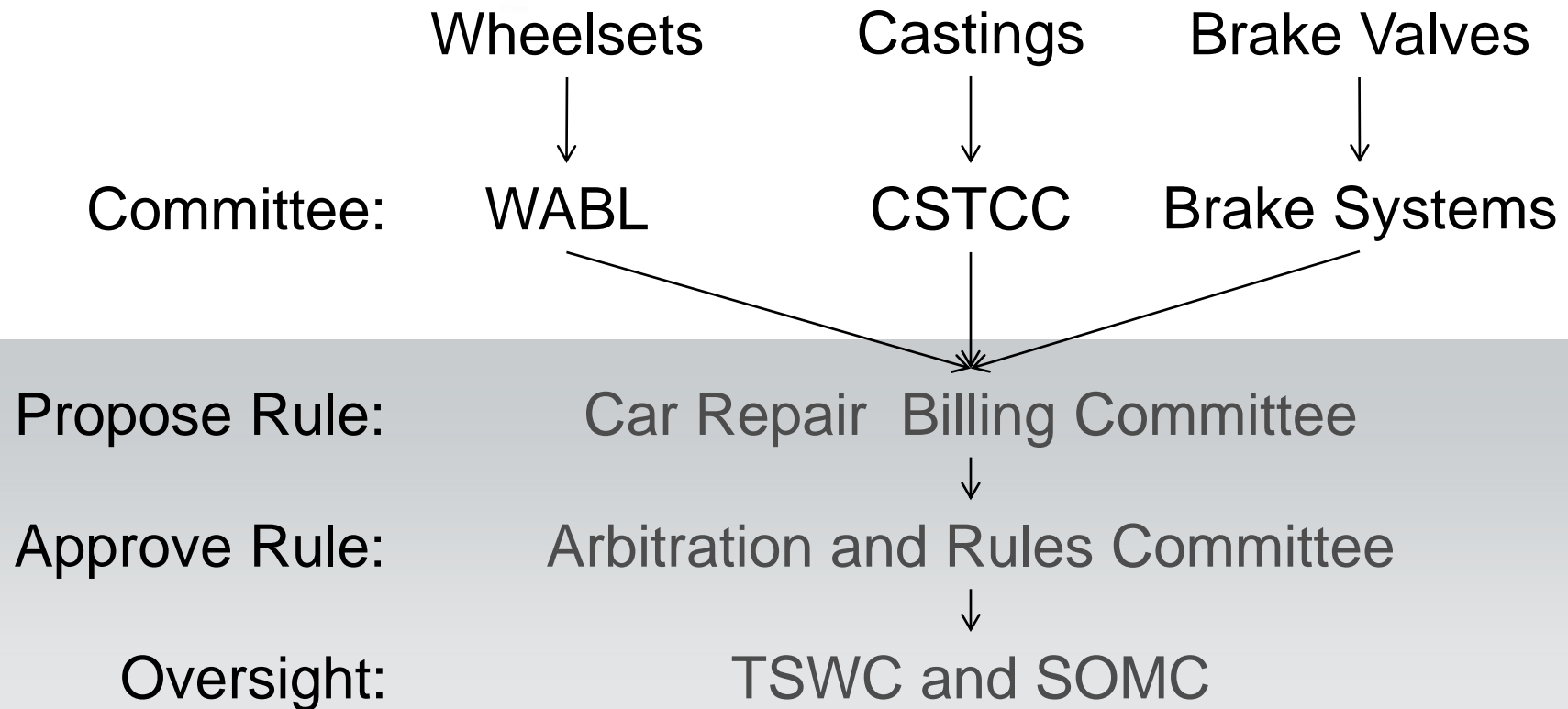


# Mandatory Timelines

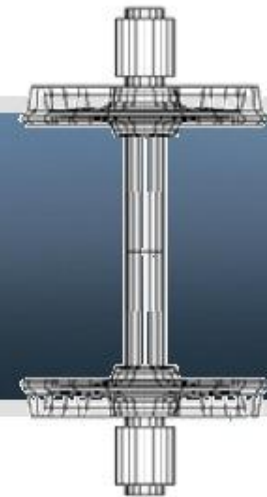




# Rule Making Hierarchy







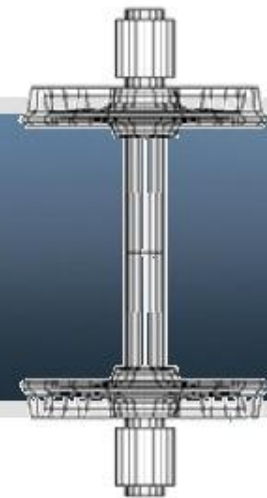
# New CRB Error Codes

## Information Only Errors

- 1Y - Blank with Repair Date prior to 10/1/2013
- 2Y - Invalid CEPM format with Repair Date prior to 10/1/2013
- 3Y - Valid format but not registered in CEPM with Repair Date prior to 10/1/2013

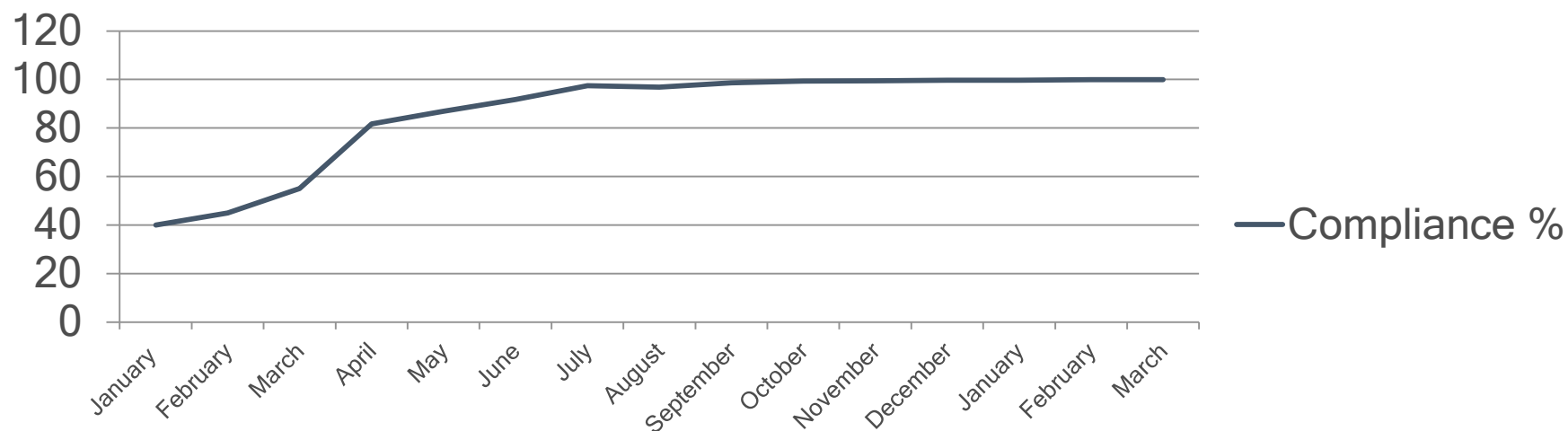
## Mandatory Errors

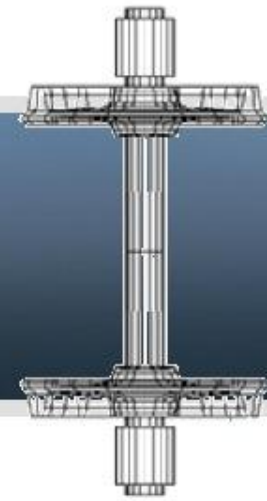
- 1V - Blank with Repair Date on or after 10/1/2013
- 2V - Invalid CEPM format with Repair Date on or after 10/1/2013
- 3V - Valid format but not registered in CEPM with Repair Date on or after 10/1/2013



# Wheelset Compliance - CRB

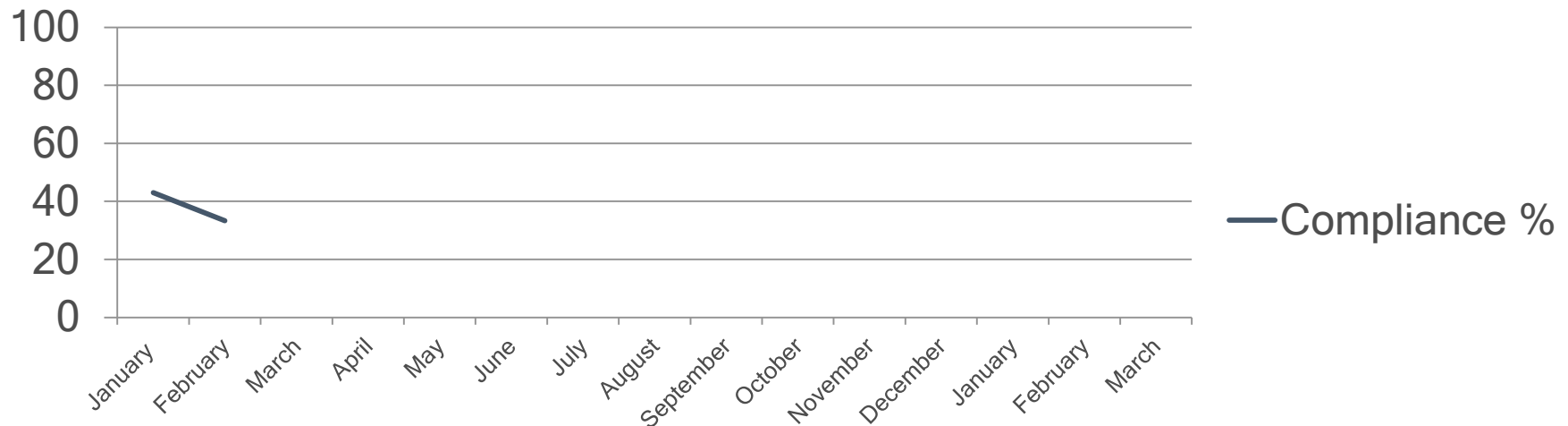
Valid CIDs	Informational / Reject	Blank	Invalid Format	Not Registered	Invalid CIDs	Total CIDs	Compliance %
46,402	Informational	16	0	1	17	46,435	99.9%
	Reject	2	0	14	16		
	Sub-Total	18	0	15	33		

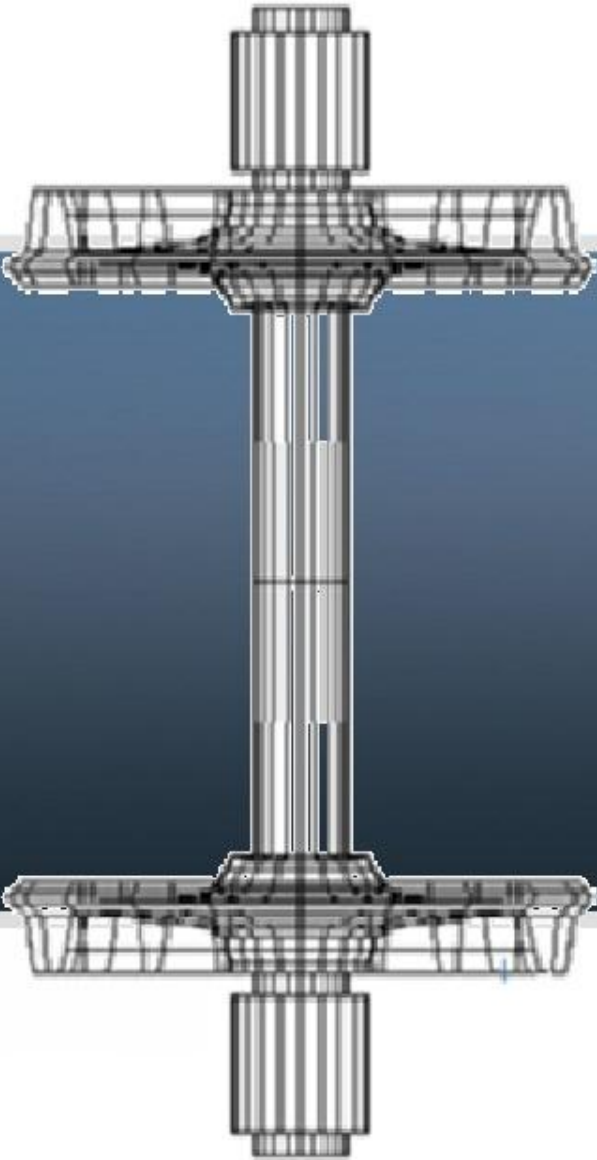




# Castings Compliance - CRB

Valid CIDs	Informational / Reject	Blank	Invalid Format	Not Registered	Invalid CIDs	Total CIDs	Compliance %
1,072	Informational	2034	1	51	2086	3,158	33.9%
	Reject	N/A	N/A	N/A	N/A		
	Sub-Total	2034	1	51	2086		





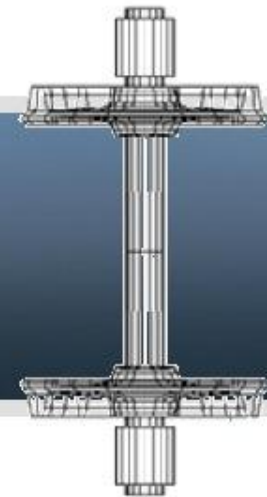
# Component Registration

## Field Registration

# Component Field Registration: Agenda



- Purpose
- Steps
- Component Walk Through
- How To Find The CID You Just Registered



# Field Registration - Purpose

- Some components are ready to be applied to a car but have not been registered
- Some mandatory elements are now unknown because the information was not captured at the time of manufacture
- ...what should you do?

Field Registration allows the component to be registered (and associated) by requiring only the information one can see by physically looking at the component



# Field Registration Steps

1. Check to see if the component is registered
2. Input the required element values
3. Receive a component ID
4. Continue your business process

# Field Registration: Wheelsets Utilizes Job Codes To Field Register



- Wheel
  - Job Code 3071 =
    - 36 inch wheel
    - Heat Treated
    - Curved Plate
    - 1 wear wheel
  - Qualifier 02 =
    - CH-36 wheel design



# Field Registration: Wheelsets Utilizes Job Codes To Field Register



## Axle

- Job Code 3276 =
  - Raised Wheel Seat
  - 6.5 inch Nominal Diameter Journal
  - 12 inch Nominal Length Journal
- Condition Code 01 =
  - New Axle

# Field Registration: Wheelsets Utilizes Job Codes To Field Register



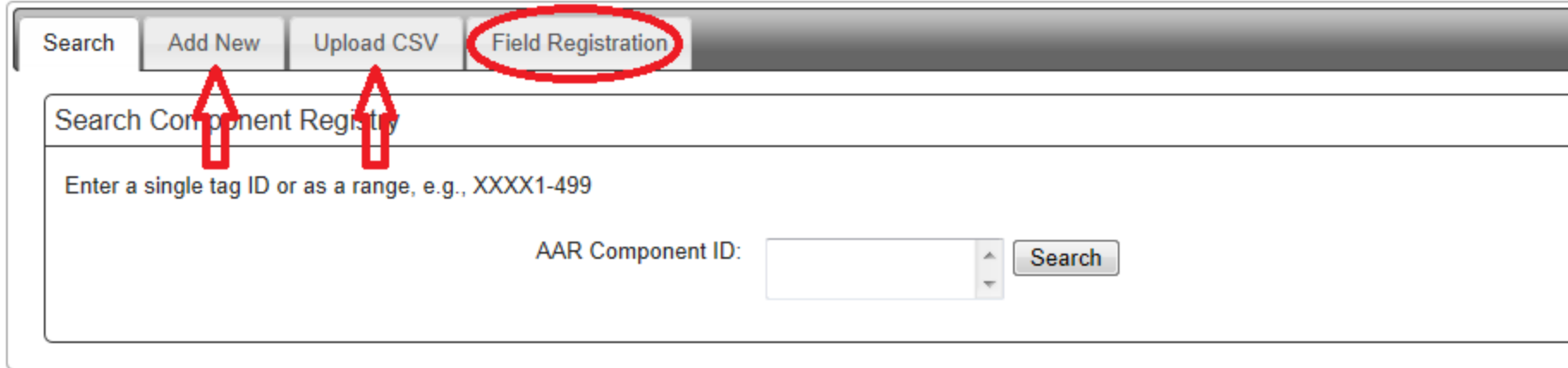
## Bearing

- Job Code 2864 =
  - 6.5 inch Nominal Diameter
  - 12 inch Nominal Length
- Condition Code 03 =
  - Reconditioned Bearing
- Qualifier 03 =
  - Manufacturer = Brenco
  - Certificate = 5
  - Universal Fitted Backing Ring



# Field Registration-Wheelsets

Home | Query | Maintenance | Upload / Download | Railinc Admin Functions | Account Administration | Contact List | Component Registry | Help | References



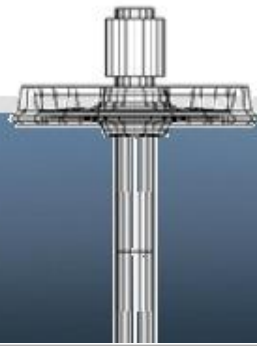
Search | Add New | Upload CSV | **Field Registration**

Search Component Registry

Enter a single tag ID or as a range, e.g., XXXX1-499

AAR Component ID:

- Tab for Field Registrations
- The Add New and Upload CSV tabs are for Wheelshops to register new wheelsets



# Field Registration-Wheelsets

Search if Wheelset is Registered

\* Wheel Serial Number:

\* Wheel Stamped Manufacturer Code:

Wheel Stamped Month/Stamped Year:

Wheel Nominal Diameter:

Wheel Design Code:

- Step 1: Enter Wheel Serial Number, Manufacturer Code, Stamped MM/YY, Nominal Diameter and Design Code that are stamped or cast into one of the wheels
- If Railinc finds a registration, the application will display the Component ID assigned to this wheelset
- If there is no wheelset with the Manufacturer Code and Serial Number in the Registry, the application will ask you to begin the field registration process



# Field Registration-Wheelsets

[Search](#)[Add New](#)[Upload CSV](#)[Field Registration](#)

Please fill in the following information to complete a field registration.

## 1. Wheelset

- \* AAR Facility Code (c003):  
- \* Applied Job Code :
- \* Condition Code :

## 2. Axle

- \* Applied Job Code :
- \* Condition Code :

## 3. Wheel Group 1

### 3.1 Wheel 1

- \* Applied Job Code :

# Field Registration-Wheelsets



Search Add New Upload CSV Field Registration

Please fill in the following information to complete a field registration.

## 1. Wheelset

Search Icon

AAR Facility Code (C003):

\* Applied Job Code :

\* Condition Code :

## 2. Axle

- AAR Facility Code is the QA Code for the wheelshop that pressed the wheelset.
- Repair shops should select the Search icon and look up the wheelshop Code on the Locking Plate
- This will automatically populate the correct QA Code

MID Search

Search type: Exact Match

MID Code:

QA Code:

Clear

Search

# Field Registration-Wheelsets



PRXL = Wheelshop Code  
stamped on Locking Plate

◆	MID CODE	◆	◆
○	PRXL	PRLK	

Searching and selecting  
PRXL will populate the AAR  
Facility Code with PRLK,  
which is the Wheelshop QA  
Code.





# Field Registration-Wheelsets

- Next, enter the Applied Job Code and Condition Code for the Wheelset (Field

## 1. Wheelset

\* AAR Facility Code (c003):

1 \* Applied Job Code :

\* Condition Code :

## 2. Axle

2 \* Applied Job Code :

\* Condition Code :



# Field Registration- Wheelsets



- Wheel information is derived from the Job Code / Qualifier and data stamped on the wheel (Field Manual Rule 41)
- Manufacturer Code and Serial Number are carried forward from the search screen.
- Bearing Information is derived from the Job Code, Condition Code and Qualifier (Field Manual Rule 36)

## 3.1 Wheel 1

* Applied Job Code :	<input type="text"/>
* Applied Qualifier :	<input type="text"/>
* Condition Code :	<input type="text" value="07"/>
* Stamped Year (C105):	<input type="text"/>
* Stamped Month (C106):	<input type="text"/>
* Stamped Manufacturer Code (C107):	<input type="text"/>
* Stamped Class (C108):	<input type="text" value=""/>
* Rim Thickness Side Scale Reading (C109):	<input type="text"/>
* Finger Gauge Reading (C110):	<input type="text"/>
* Stamped Serial Number (C111):	<input type="text" value="21312"/>

## 3.2 Roller Bearing 1

* Applied Job Code :	<input type="text"/>
* Applied Qualifier :	<input type="text"/>
* Condition Code :	<input type="text"/>



# Field Registration-Wheelsets

## 4. Wheel Group 2

### 4.1 Wheel 2

☐ Wheel 2 same as Wheel 1

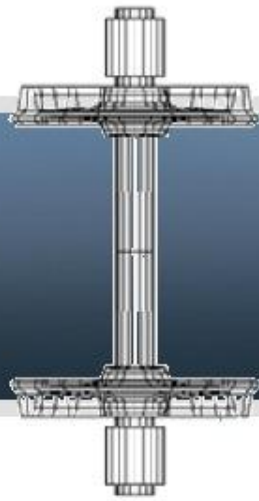
\* Applied Job Code :   
 \* Applied Qualifier :   
 \* Condition Code :   
 \* Stamped Year :   
 \* Stamped Month :   
 \* Stamped Manufacturer Code :   
 \* Stamped Class :   
 \* Rim Thickness Side Scale Reading :   
 \* Finger Gauge Reading :   
 \* Stamped Serial Number :

### 4.2 Roller Bearing 2

☐ Bearing 2 same as Bearing 1

\* Applied Job Code :   
 \* Applied Qualifier :   
 \* Condition Code :

- Many times the Wheel and Bearing information is the same for both sides of the Wheelset
- For Example, both Wheels may be Griffin and both Bearings may be Timken
- Selecting the Check Box will copy data from Wheel 1 and Bearing 1 to Wheel 2 and Bearing 2
- However, any data that is not exactly the same should be changed (i.e. Wheel Serial Number)



# Field Registration-Wheelsets

- When Field Registration is

Search Add New Upload CSV Field Registration

The Field Registration was successful. Here is your component ID: 8RIC0002867550

Register Another

Please fill in the following information to complete a field registration.

1. Wheelset

associate the wheelset to the  
Equipment ID

Additional information regarding the CEPM program is available at [www.railinc.com/cepm](http://www.railinc.com/cepm)

Demos are available related to Barcode requirements as well as specific information for Manufacturers, Wheel Shops, and Repair Shops for CEPM-Wheelsets.



# CEPM Process Flow

