



Locomotive Health and Status User Guide



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Last Updated: January 2024

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Learning about LMIS

Locomotive Management Information System (LMIS) is an application that helps users view and manage information about locomotives. Locomotive Health and Status is an application module within LMIS.

Overview

Locomotive Health and Status enables users to assess a locomotive's capability quickly and efficiently by viewing the automated Umler® Characteristics, Federal Inspection Status and Subsystem Health Status for a locomotive. You can also create a Subsystem Health Report as well as view and manage their Foreign Repair Authorizations. This document describes how to use Locomotive Health and Status through the following major sections:

- [Getting Started](#) describes how to access and log in to the system.
- [Working with Equipment](#) describes how to view and manage locomotive information as described in the following sections:
 - [Viewing Umler Characteristics](#)
 - [Viewing Federal Inspection Status Information](#)
 - [Viewing Equipment Status Information](#)
 - [Viewing Subsystem Status Information](#)
 - [Creating a Health Report](#)
- [Managing Foreign Repair Authorizations](#) describes how to view your own foreign repair authorizations and grant foreign repair authorizations to other railroads.
- [Appendix A. Using Locomotive Health and Status on a Mobile Device](#) describes how to use the mobile interface.

For additional information, contact the Railinc Customer Success Center (see [Accessing the Railinc Customer Success Center](#)).

System Requirements

For information about the system requirements of Railinc web applications and for information about downloading compatible web browsers and file viewers, refer to the [Railinc UI Dictionary](#).

Accessing the Railinc Customer Success Center

The Railinc Customer Success Center provides reliable, timely, and high-level support for Railinc customers. Representatives are available to answer calls and respond to emails from 7:00 a.m. to 7:00 p.m. Eastern time, Monday through Friday, and provide on-call support via pager for all other hours to ensure support 24 hours a day, 7 days a week. Contact us toll-free by phone at 877-RAILINC (1-877-724-5462) or send an email directly to csc@railinc.com.

Getting Started

LMIS uses Railinc Single Sign-On (SSO) to manage permissions. To access SSO, view the Railinc portal at <https://public.railinc.com> and select **Customer Login** at the top right of the page.

Registering to Use Railinc SSO

Each LMIS user must register to use Railinc Single Sign-On (SSO). If you are not already registered, refer to the [Railinc Single Sign-On and Launch Pad User Guide](#) for more information. Once you have completed SSO registration, request access to LMIS within SSO.

Requesting Access to LMIS Launch Pad

After you receive authorization to use Railinc SSO, you must request general access to LMIS Launch Pad by following instructions in the [Railinc Single Sign-On and Launch Pad User Guide](#).

Your level of access and authorization for LMIS is determined when you request access through Railinc SSO. [Exhibit 1](#) shows a complete list of LMIS roles as seen in SSO.

Exhibit 1. User Roles and Tasks

Task	Description
LMIS User	This role enables users to view Umler Characteristics, Federal Inspection Status, Subsystem Health Status, Foreign Repair Authorizations, and the User Guide. Users must request access under the mark that they represent.
LMIS Subsystem Health Admin	This role enables users to submit Subsystem Health Reports.
LMIS Company Admin	This role enables users to grant mark permissions.
LMIS Foreign Repair Auth Admin	This role enables users to provide handling roads permissions to Grant Handling Road Foreign Repair Authorization by Job Code.

Your assigned user role determines what functions you can perform. User roles are assigned by Railinc through the Single Sign-On interface ([Exhibit 2](#)).

Exhibit 2. LMIS Request Permission

LMIS
Locomotive Management Information System

1 Select Roles 2 Confirm 3 Done

☐ LMIS Company Admin (MARK required)
Allows the user to grant mark permissions

☐ LMIS Foreign Repair Auth Admin (MARK required)
Allows the user to provide handling roads permission to Grant Handling Road Foreign Repair Authorizations by Job Code

☐ LMIS Subsystem Health Admin (MARK required)
Allows the user to submit Subsystem Health Reports

☐ LMIS User (MARK required)
Allows the user to view Umler Characteristics, Federal Inspection Status, Subsystem Health Status, Foreign Repair Authorizations, and the User

Comments...

Return Next 0/255

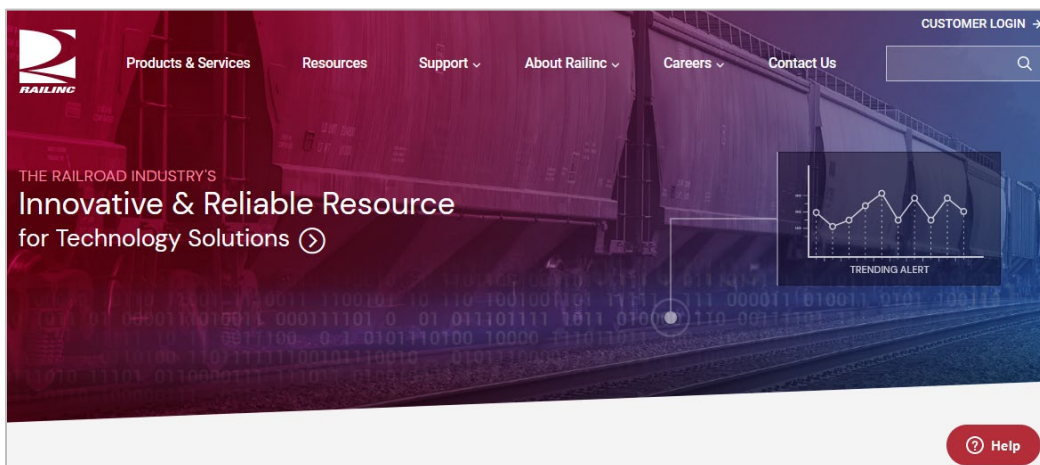
Choose your role and enter the mark for your railroad. Select **Next** to proceed. Once you receive email notification of access, you can log on and begin using Locomotive Health and Status.

Logging In

Use the following procedure to log into Locomotive Health and Status:

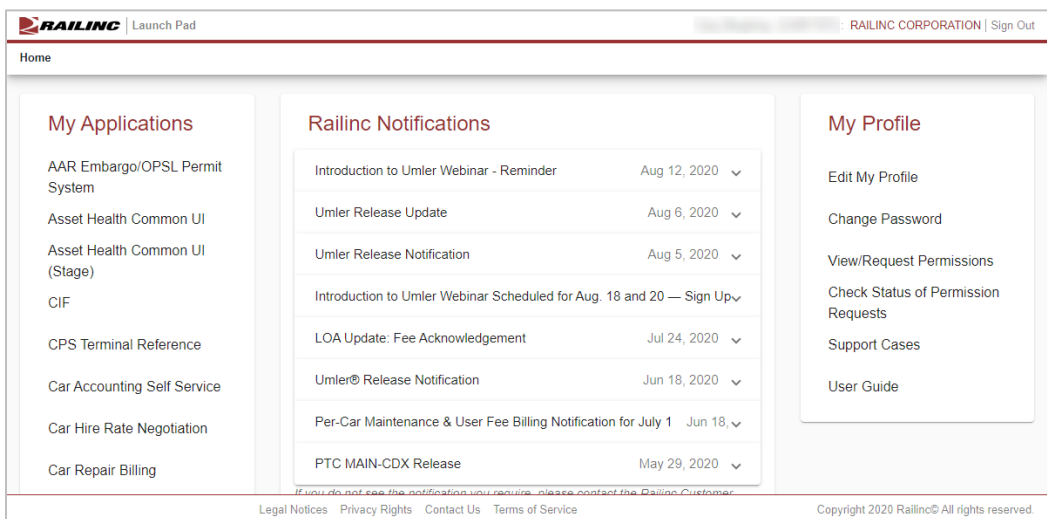
1. Open your internet browser.
2. Enter the following URL: <https://public.railinc.com>. The Railinc Welcome page is displayed ([Exhibit 3](#)).

Exhibit 3. Railinc Welcome Page



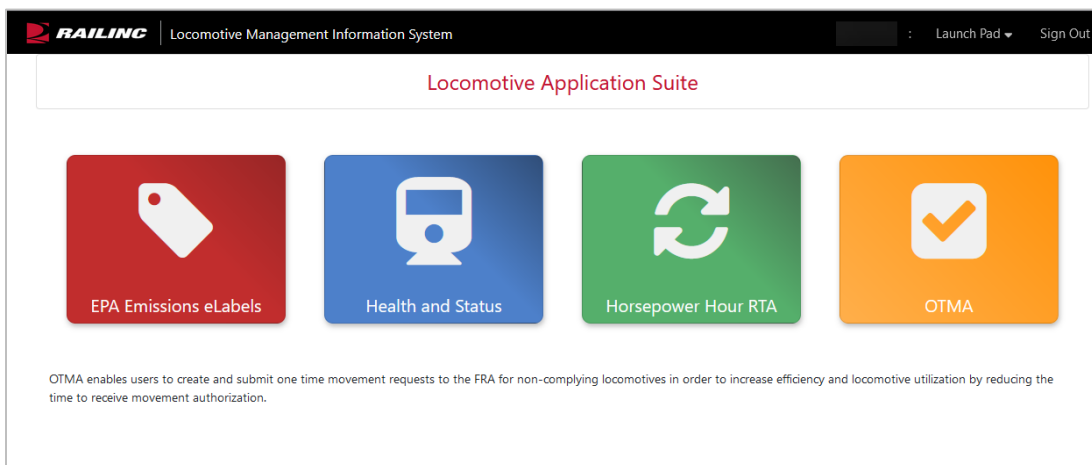
3. Select **Customer Login** at the top right. The Railinc Account Access panel is displayed.
4. In the Account Access panel, enter your **User ID** and **Password**. Select **Sign In**. The Railinc Launch Pad is displayed ([Exhibit 4](#)).

Exhibit 4. Railinc Launch Pad



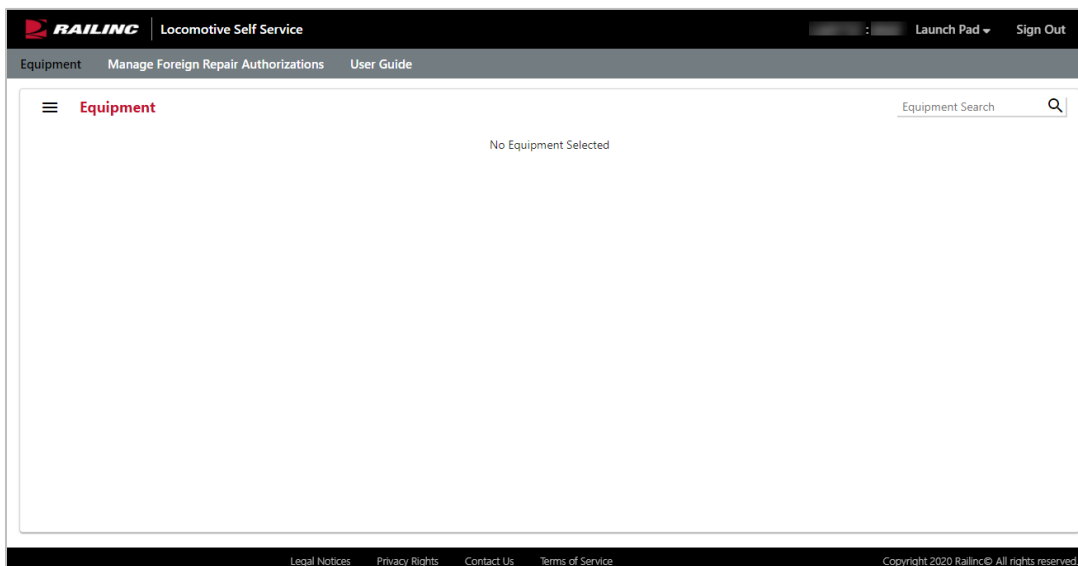
5. Under **My Applications**, select **Locomotive Management Information System**. The LMIS Home page is displayed ([Exhibit 5](#)).

Exhibit 5. LMIS Home Page



6. Select **Health and Status**.

Exhibit 6. Locomotive Health and Status Home Page



Locomotive Health and Status has a menu bar with the following options:

Equipment	Search Equipment IDs, view last known location, view Umler Characteristics, view Federal Inspection Status, and view/report Subsystem Health Status.
Manage Foreign Repair Authorizations	View/grant foreign equipment repair authorizations to other railroads and view the railroads for which you have been granted foreign repair authorizations.
User Guide	View the <i>Locomotive Health and Status User Guide</i> (this document).

Logging Out

Select the **Sign Out** link to end an LMIS session.

Working with Equipment

When first opened, Locomotive Health and Status displays the Equipment page with no equipment selected ([Exhibit 6](#)). The first step is to search for the equipment you want to work with.

Searching for Equipment

In the Equipment Search field, enter an equipment ID, several equipment IDs separated by commas, or a range of equipment IDs.

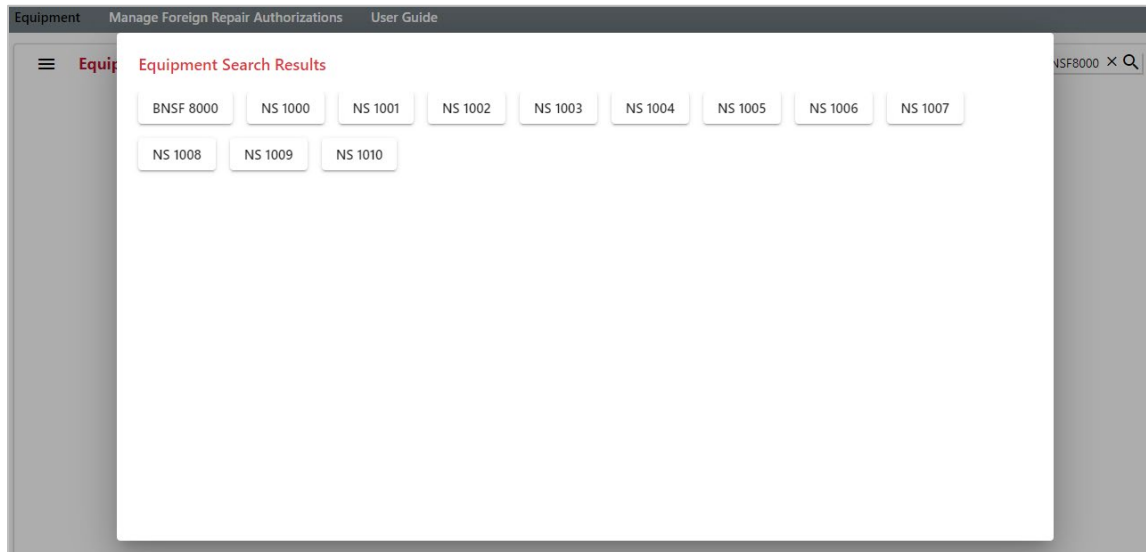
The following are examples of valid equipment ID search strings:

- NS1000
- NS1000, NS1005, NS1010, BNSF8000
- NS1000-1010, BNSF8000

Select the search icon (🔍) or press Enter. The results are displayed in the Equipment Search Results pop-up ([Exhibit 7](#)).

Note: If you enter a single equipment ID, information about the equipment is displayed directly on the Equipment page ([Exhibit 8](#)).

Exhibit 7. Equipment Search Results Pop-up

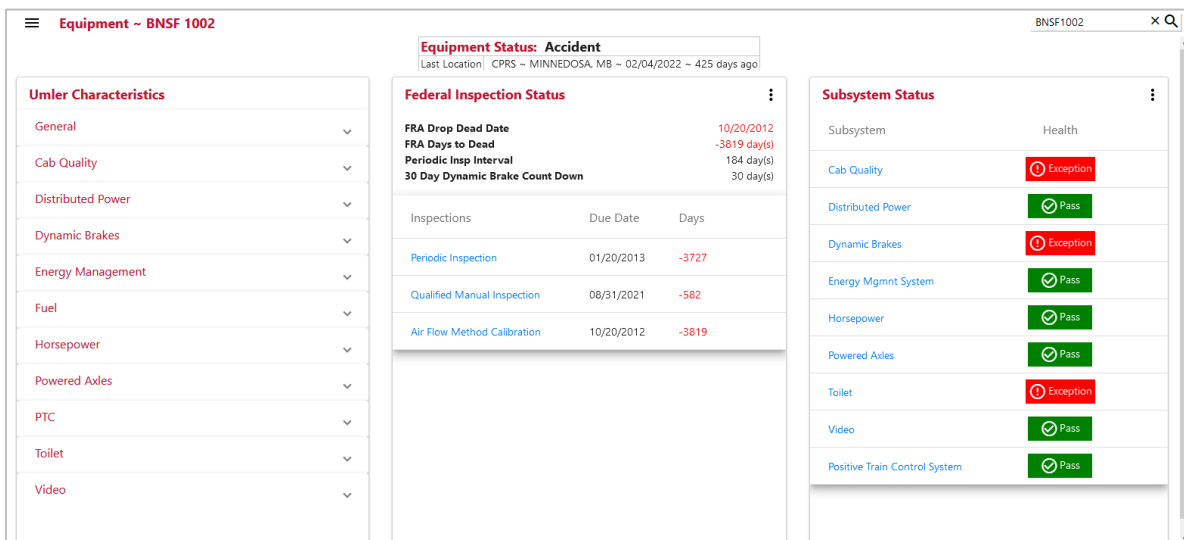


The Equipment Search Results pop-up displays the equipment IDs returned by your search if you searched for multiple equipment IDs. This pop-up can display up to 50 equipment IDs.

Note: No information is displayed for any equipment IDs that are not locomotives or are not valid for some other reason.

Select an equipment ID from the search results to view information about that piece of equipment ([Exhibit 8](#)).

Exhibit 8. Equipment Page Showing Locomotive Information



The Equipment Page shows information for a single locomotive, including the following:

- Last location and geographic heading, if applicable, based on TRAIN II movement events
- [Umler Characteristics](#)
- [Federal Inspection Status](#)
- [Subsystem Status](#)

You can select the Equipment Menu icon (≡) to see additional options, including:

- Last Search – Redisplays the Equipment Search Results pop-up ([Exhibit 7](#)).
- Launch Umler – Performs an Umler Search for the selected piece of equipment (provided you have the proper Umler permissions).
- [Creating a Health Report](#) – Enables you to create a new Subsystem Health Report for the selected piece of equipment.

Viewing Umler Characteristics

The Umler Characteristics panel (highlighted in [Exhibit 9](#)) displays physical characteristics information about the selected locomotive. Select the down arrow of an Umler characteristic to view the details. If the subsystem is not configured in Umler, then the Umler Characteristics section will not be populated. Refer to the **Locomotives** section in the [Umler Data Specification Manual](#) for additional information.

Exhibit 9. View Umler Characteristics

The screenshot shows the 'Equipment ~ BNSF 1002' interface. The 'Umler Characteristics' panel on the left is highlighted with a red box. It contains a 'General' section with fields: Equipment Builder (J), Equipment Descriptor (DFGT), Equipment Type Code (D127), Locomotive Model Number (C44-9W), Status Code (A), and Stenciled Mark Owner (BNSF). Below this are expandable sections for Cab Quality, Distributed Power, Dynamic Brakes, Energy Management, Fuel, Horsepower, Powered Axes, PTC, Toilet, and Video. The 'Federal Inspection Status' panel in the center shows 'Equipment Status: Accident' and 'Last Location: CPRS ~ MINNEDOSA, MB ~ 02/04/2022 ~ 425 days ago'. It lists inspection metrics: FRA Drop Dead Date (10/20/2012, -3819 days), FRA Days to Dead (184 days), Periodic Insp Interval (30 days), and 30 Day Dynamic Brake Count Down (30 days). A table of inspections follows: Periodic Inspection (01/20/2013, -3727), Qualified Manual Inspection (08/31/2021, -582), and Air Flow Method Calibration (10/20/2012, -3819). The 'Subsystem Status' panel on the right shows 'Health' status for Cab Quality, Dynamic Brakes, and Toilet, all marked with 'Exception' icons.

Viewing Federal Inspection Status Information

The Federal Inspection Status panel (highlighted in [Exhibit 10](#)) displays information about the required federal inspections for the selected locomotive. This allows users to view locomotive federal inspection due dates and validate federal data against the Bluecard. Refer to the **Locomotives** section in the [Umler Data Specification Manual](#) for additional information.

Exhibit 10. View Federal Inspection Status

This screenshot shows the same interface as Exhibit 9, but with the 'Federal Inspection Status' panel expanded. A dropdown menu is open, showing options: 'Exception View' (selected) and 'Full View'. The 'Full View' option is checked. The expanded panel lists additional inspections: Annual Inspection (Invalid date), Event Recorder Inspection (Invalid date), Handbrake Inspection (Invalid date), and Cab Signal Inspection (Invalid date). The 'Subsystem Status' panel on the right remains visible, showing 'Exception' status for Cab Quality, Dynamic Brakes, and Toilet.

By default, Locomotive Health and Status displays the **Exception View**, which only shows exceptions (i.e., problems). To change the view, select the vertical ellipsis (⋮). Select **Full View** to view the current status of all subsystems.

Select the link of an inspection name to view details about that inspection ([Exhibit 11](#)).

Exhibit 11. View Federal Inspection Status Details

BNSF 1002 ~ Federal Inspection ~ FRQ	
Date Done	07/21/2012
Performer	BNSF
Reporter	BNSF
Scheduled Due Date	01/20/2013
Location/SPLC	581520000
Due Date	01/20/2013

Dismiss

Select **Dismiss** to close the Federal Inspection Status Details pop-up.

Viewing Equipment Status Information

The Equipment Status panel ([Exhibit 12](#)) displays information about the equipment level severity and One Time Movement Authority/Federal Railroad Administration (OTMA/FRA) status of the selected locomotive. This information comes from the OTMA/FRA applications and cannot be edited in LMIS.

For OTMA/FRA requests awaiting FRA review, the **FRA Approval Date**, **Last Update Received**, **Origin**, **Destination**, the locomotive's **Last Location** and **Last Geographic Heading**, if applicable, are displayed in **Equipment Status**.

Exhibit 12. Equipment Status Panel

Equipment ~ NS 1001	
Equipment Status: ● Awaiting FRA Review	
FRA approval Date	Invalid date
Last Update Received	09/23/2022
Origin	Raleigh, NC
Destination	Miami, FL
Last Location	NS ~ MAYSVILLE, GA ~ 07/25/2022 ~ 60 days ago
Umler Characteristics	
General	▼
Cab Quality	▼
Distributed Power	▼
Dynamic Brakes	▼
Energy Management	▼
Horsepower	▼
Powered Axles	▼
PTC	▼
Toilet	▼
Federal Inspection Status	
FRA Drop Dead Date	08/04/2021
FRA Days to Dead	-415 day(s)
Periodic Insp Interval	184 day(s)
Inspections	Due Date Days
Periodic Inspection	11/04/2021 -323
Qualified Manual Inspection	09/10/2021 -378
Air Flow Method Calibration	11/02/2021 -325
Annual Inspection	05/07/2022 -139
Event Recorder Inspection	05/07/2022 -139
Handbrake Inspection	05/07/2022 -139
Subsystem Status	
Subsystem	
Positive Train Control System	
Cab Quality	
Energy Mgmt Syst	
Distributed Power	
Dynamic Brakes	
Powered Axles	
Video	
Toilet	

Refer to the [Creating a New Locomotive OTMA Request](#) section of the [LMIS OTMA User Guide](#) for additional information.

When there is no equipment severity or OTMA status to display, **Equipment Status** displays the locomotive's **Last Location** and **Last Geographic Heading**, if applicable.

Exhibit 13. Equipment Status

Equipment Status: Accident	
Last Location	CPRS ~ LETHBRIDGE, AB ~ 11/03/2023 ~ 25 days ago
Last Geographic Heading	NW ~ 10/18/2023 22:52

Viewing Subsystem Status Information

The Subsystem Status panel (highlighted in [Exhibit 14](#)) displays information about the health status of the subsystems for the selected locomotive. Refer to the **Locomotives** section in the [Umler Data Specification Manual](#) for additional information.

Exhibit 14. Exception View of Subsystem Status

Equipment ~ BNSF 1002

Equipment Status: Accident
Last Location: CPRS ~ MINNEDOSA, MB ~ 02/04/2022 ~ 425 days ago

Umler Characteristics

General

Equipment Builder	J
Equipment Descriptor	DFGT
Equipment Type Code	D127
Locomotive Model Number	C44-9W
Status Code	A
Stenciled Mark Owner	BNSF

Cab Quality

Distributed Power

Dynamic Brakes

Energy Management

Fuel

Horsepower

Powered Axles

PTC

Toilet

Video

Federal Inspection Status

FRA Drop Dead Date: 10/20/2012
FRA Days to Dead: -3819 day(s)
Periodic Insp Interval: 184 day(s)
30 Day Dynamic Brake Count Down: 30 day(s)

Inspections	Due Date	Days
Periodic Inspection	01/20/2013	-3727
Qualified Manual Inspection	08/31/2021	-582
Air Flow Method Calibration	10/20/2012	-3819
Annual Inspection	Invalid date	
Event Recorder Inspection	Invalid date	
Handbrake Inspection	Invalid date	
Cab Signal Inspection	Invalid date	

Subsystem Status

Subsystem	Health
Cab Quality	Exception
Dynamic Brakes	Exception
Toilet	Exception

By default, Locomotive Health and Status displays the **Exception View**, which only shows exceptions (i.e., problems). To change the view, select the vertical ellipsis (⋮). Select **Full Status View** to view the current status of all subsystems ([Exhibit 15](#)). Select **History View** to view the status history all subsystems.

Exhibit 15. Full Status View of Subsystem Status

Equipment - BNSF 1002

Equipment Status: Accident
Last Location: CPRS ~ MINNEDOSA, MB ~ 02/04/2022 ~ 425 days ago

Umler Characteristics

- General
- Cab Quality
- Distributed Power
- Dynamic Brakes
- Energy Management
- Fuel
- Horsepower
- Powered Axles
- PTC
- Toilet
- Video

Federal Inspection Status

FRA Drop Dead Date: 10/20/2012
FRA Days to Dead: -3819 day(s)
Periodic Insp Interval: 184 day(s)
30 Day Dynamic Brake Count Down: 30 day(s)

Inspections	Due Date	Days
Periodic Inspection	01/20/2013	-3727
Qualified Manual Inspection	08/31/2021	-582
Air Flow Method Calibration	10/20/2012	-3819
Annual Inspection	Invalid date	
Event Recorder Inspection	Invalid date	
Handbrake Inspection	Invalid date	
Cab Signal Inspection	Invalid date	

Subsystem Status

Subsystem	Health
Cab Quality	Exception
Distributed Power	Pass
Dynamic Brakes	Exception
Energy Mgmt System	Pass
Horsepower	Pass
Powered Axles	Pass
Toilet	Exception
Video	Pass
Positive Train Control System	Pass

Select the link of a subsystem name to see details about the subsystem inspection ([Exhibit 16](#)).

Exhibit 16. View Subsystem Status Details

BNSF 1002 ~ Subsystem Status Details

Subsystem: Cab Quality

Health Report [History](#) [Comment](#)

Date: 04/05/2023
Conducted: UP
Result: Exception
SPLC: 411703000
Location: RALEIGH-DURHAM INTL AIRPORT, NC

Cab Seat Types 2 exception(s)

Cab Element	Result
Operator	Exception
Helper Seat	Exception

Cab Electronics 1 exception(s)

Cab Element	Result
Bell	Exception

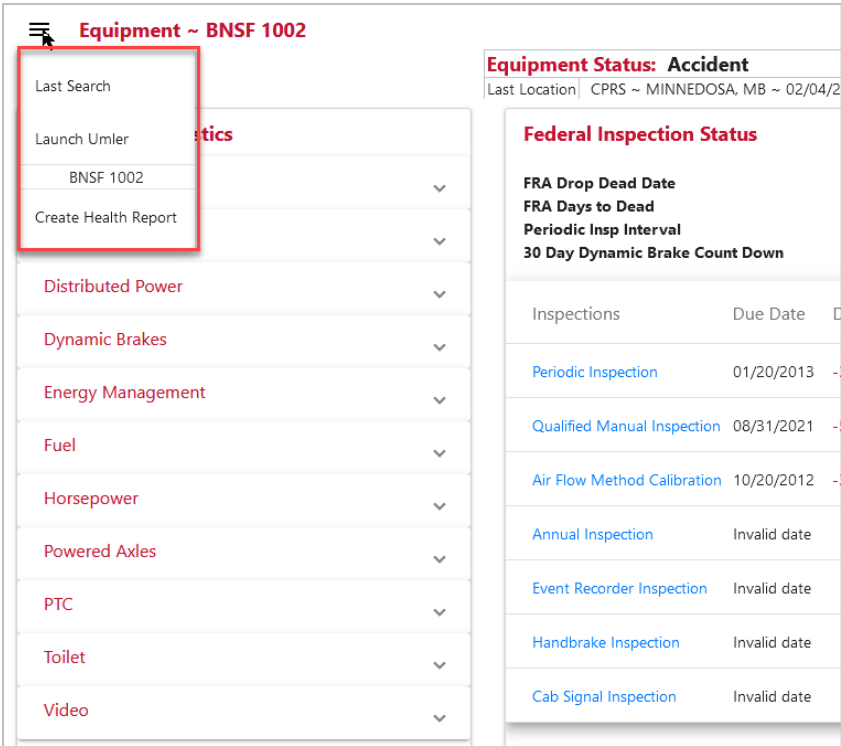
[Dismiss](#)

Select **Dismiss** to close the Subsystem Status Details pop-up.

Creating a Health Report

You can create a new Health Report and update the Equipment or Subsystem Health Status for equipped subsystems of any locomotive. To do this, select the Equipment Menu icon (≡) and then select **Create Health Report** as shown in [Exhibit 17](#).

Exhibit 17. Create Health Report Menu Item



After you select **Create Health Report**, the New Health Report pop-up is displayed ([Exhibit 18](#)).

Exhibit 18. New Health Report Pop-up

New Health Report ~ NS 1001

SPLC *
Enter 9-digits

Report Date
09/23/2022

NS 1001	
Severity	Comment
<input type="radio"/>	

Subsystem	Result	Comment
Cab Quality	<input type="radio"/>	
Distributed Power	<input type="radio"/>	
Dynamic Brakes	<input type="radio"/>	
Energy Mgmt System	<input type="radio"/>	
Horsepower	<input type="radio"/>	
Positive Train Control System	<input type="radio"/>	
Powered Axles	<input type="radio"/>	
Toilet	<input type="radio"/>	
Video	<input type="radio"/>	

Cancel

Submit Report

If the subsystem is not equipped in Umler, then the subsystem will not be populated in the Create Health Report. The Health Report requires the inclusion of a Standard Point Location Code (SPLC). Select the search icon (Q) to look up the SPLC where the subsystem health was tested. The SPLC Search pop-up is displayed ([Exhibit 19](#)).

Note: If you know the SPLC where the subsystem health was tested, simply enter it to skip the SPLC Search pop-up.

Exhibit 19. SPLC Search Pop-up

SPLC Search

Enter at least two criteria to search.

SPLC
Search up to 9 digits

Location
pittsburgh

State / Province
pa

Partial SPLCs allowed
10 / 50
2 / 2

Clear
Search

SPLC	Location	State / Province	SCAC
218145000	PITTSBURGH ETNA	PA	
218343000	EAST PITTSBURGH	PA	
218500000	PITTSBURGH	PA	
218500037	KNOXVILLE (PITTSBURGH)	PA	
218500039	LAWRENCEVILLE (PITTSBURGH)	PA	
218500045	MOUNT WASHINGTON (PITTSBURGH)	PA	
218500049	OVERBROOK (PITTSBURGH)	PA	
218500050	PITTSBURGH WEST END	PA	
218500051	POINT BREEZE (PITTSBURGH)	PA	
218500058	SPRING GARDEN (PITTSBURGH)	PA	
218500061	STANTON HEIGHTS (PITTSBURGH)	PA	

Cancel
Select

Complete the **Location** and **State/Province** fields and select **Search**. Locomotive Health and Status displays a list of SPLC's matching the information you entered. Select the **SPLC** you need and select the **Select** button. The New Health Report pop-up is redisplayed with the SPLC field completed. Select the **Result** column for the subsystem(s) you want to report.

Exhibit 20. New Health Report

New Health Report ~ NS 1001

SPLC *

451880000

Report Date

09/23/2022

NS 1001

Severity	Comment
<input checked="" type="radio"/> Wreck	

Subsystem	Result	Comment
Cab Quality	<input type="radio"/>	
Distributed Power	<input type="radio"/>	
Dynamic Brakes	<input type="radio"/>	
Energy Mgmt System	<input type="radio"/>	
Horsepower	<input type="radio"/>	
Positive Train Control System	<input type="radio"/>	
Powered Axles	<input type="radio"/>	
Toilet	<input type="radio"/>	
Video	<input type="radio"/>	

Cancel

Submit Report

Select the **Severity** column to display the equipment severity you want to report. Select once for a green **Pass** indicator, select twice for a red **Accident** indicator, select three times for red **Wreck** indicator (pictured above), and select four times to clear all indicators.

Entering a comment in the **Comment** column saves your comments to the database but your comments won't be displayed in the application.

Select **Submit Report**. A confirmation pop-up is displayed. Select **Submit Report** again to confirm ([Exhibit 21](#)).

Exhibit 21. New Health Report

All finished?

Confirm the submission of the inspection report.

Keep Editing

Submit Report

The Equipment Health Status is updated. The **Equipment Severity Status** is displayed along with any current OTMA/FRA information.

Exhibit 22. Equipment Severity Status

Equipment Status: Wreck ● Awaiting FRA Review			
FRA approval Date	Invalid date	Last Location	NS ~ MAYSVILLE, GA ~ 07/25/2022 ~ 60 days ago
Last Update Received	09/23/2022		
Origin	Raleigh, NC	Destination	Miami, FL

You can also create a new Health Report and update the Subsystem Health Status for equipped subsystems of any locomotive. If the subsystem is not equipped in Umler, then the subsystem will not be populated in the Create Health Report.

In the Health Report, select the **Result** column for the subsystem(s) you want to report.

Select once for a green **Pass** indicator, select twice for a red **Exception** indicator, or select three times to clear all indicators ([Exhibit 23](#)).

Exhibit 23. New Health Report Overview With Results Selected

New Health Report ~ NS 1001

SPLC * 417500000 Report Date 09/23/2022

NS 1001	
Severity	Comment
✓ Pass	

Subsystem	Result	Comment
Cab Quality	✓ Pass	
Distributed Power	✓ Pass	
Dynamic Brakes	✓ Pass	
Energy Mgmt System	✓ Pass	
Horsepower	✓ Pass	
Positive Train Control System	✓ Pass	
Powered Axles	✓ Pass	
Toilet	✓ Pass	
Video	✓ Pass	

Cancel

For each of the subsystems below, you have the option to enter a unique detailed mechanical report. When a **Result** is selected for a subsystem, a pencil icon appears next to the subsystem in the **Subsystem** column. Select the pencil icon next to the subsystem to open and enter a detailed report for one or more of the following:

Cab Quality

Cab Quality covers elements within a locomotive's cab. Cab Quality Umler characteristics appear at the top in the **Equipment Configuration** section for the locomotive you have selected.

Select the down arrow to open and view the available cab elements of one or more Cab Quality components. Some elements are specific to country, for example, in the **Crew Comfort** section, **Hot Plate/Microwave** and **Refrigerator/Watercooler** are not required for U.S. locomotives but are required for Canadian locomotives.

Select the **Status** column for the Cab Element you want to report. Select once for a green **Pass** indicator, select twice for a red **Exception** indicator, or select three times to clear.

Exhibit 24. Cab Quality Cab Elements

New Mechanical Subsystem Health Report ~ Cab Quality

Equipment Configuration

Cab Seat Count	3
Air Condition Equipped	Y
Aux Side Wall Heat	Y
Event Recorder Type	CRMF
Water Cooler	B

Cab Seat Types

Cab Element	Status
Operator	<input type="radio"/>
Conductor	<input type="radio"/>
Helper Seat	<input type="radio"/>
Jump Seat	<input type="radio"/>

Cab Electronics

Cab Element	Status
Alerter	<input type="radio"/>
Bell	<input type="radio"/>
Computer Screens	<input type="radio"/>
Event Recorder/ LDARs	<input type="radio"/>
Horn	<input type="radio"/>
HOTD	<input type="radio"/>
Speed Indicator	<input type="radio"/>
Operator Display	<input type="radio"/>
Voice Radio	<input type="radio"/>

Crew Comfort

Cab Element	Status
Airconditioning	<input type="radio"/>
Heater	<input type="radio"/>
Hot Plate / Microwave	<input type="radio"/>
Refrigerator / Watercooler	<input type="radio"/>
Ride Quality	<input type="radio"/>

Lighting

Cab Element	Status
Cab Lighting	<input type="radio"/>
Head / Ditch lights	<input type="radio"/>

Mechanical Components

Cab Element	Status
Doors and Seals	<input type="radio"/>
Door locks	<input type="radio"/>
Steps	<input type="radio"/>
Fire Extinguisher	<input type="radio"/>
Windshield Wipers	<input type="radio"/>
Windshield	<input type="radio"/>
Other Windows	<input type="radio"/>
Headliner	<input type="radio"/>
Floor	<input type="radio"/>
Defroster	<input type="radio"/>
Sun Visor	<input type="radio"/>

Cancel

Add Mechanical Report

New Mechanical Subsystem Health Report ~ Cab Quality

Equipment Configuration

Cab Seat Count	3
Air Condition Equipped	Y
Aux Side Wall Heat	Y
Event Recorder Type	CRMF
Water Cooler	B

Cab Seat Types

Cab Element	Status
Operator	<input checked="" type="radio"/> Pass
Conductor	<input checked="" type="radio"/> Exception
Helper Seat	<input type="radio"/>
Jump Seat	<input type="radio"/>

Cab Electronics

Cab Element	Status
Alerter	<input type="radio"/>
Bell	<input type="radio"/>

Cancel

Add Mechanical Report

When you are done selecting all the elements that you want to report on, select the **Add Mechanical Report** button to complete your report and select **Submit Report** to confirm this subsystem mechanical report.

Distributed Power

Distributed Power is multiple locomotives in a train consist that communicate with each other wirelessly. In the background, they have a map of the terrain of the track. For efficiency in fuel and velocity, one locomotive may need to increase in velocity and another locomotive may need to decrease in velocity or brake to keep the train running smoothly on the track. For this, Distributed Power has various events, alarms, and faults to track in this section to improve technology and operations for the locomotive you have selected.

Hover over each event in the **Events** column and each **Fault** in the **Operator Reporter Faults** section to view a detailed definition. Events with more than one alarm have a drop-down list to select from in the **Alarms** column.

Exhibit 25. Distributed Power Event, Alarm and Fault Types

New Mechanical Subsystem Health Report ~ Distributed Power

Events	Alarms
[135] Throttle Mode Mismatch	[13] Mode Idle
[132] Traction Step Mismatch	[13] Mode Traction
[133] Dynamic Brake Mismatch	[13] Mode DB Set-up
[131] Direction Mismatch	[13] Mode DB
[102] PIR Mismatch	[13] Mode Charge
[098] Emergency Magnet Valve [EMV] Mismatch	[13] Mode Speed
[122] Supply Error +5 VDC	[13] Mode Invalid

Faults	Alarms
Radio Failure	[13] Mode DB Set-up
Link Fail	[13] Mode DB
No DP Menu	[13] Mode Charge
PCS Unrecoverable (after linking)	[13] Mode Speed
No Tractive Effort	[13] Mode Invalid
Missing DP Components	
DP Remote does not load properly in Synchronous mode	
DP unlinks spontaneously	
DP Breaker(s) tripped	

Cancel Add Mechanical Report

When you are done selecting all the elements that you want to report on, select the **Add Mechanical Report** button to complete your report and select **Submit Report** to confirm this subsystem mechanical report.

Horsepower

Horsepower covers the percentage of horsepower coming from the engine. Horsepower Umler characteristics appear at the top in the **Equipment Configuration** section for the locomotive you have selected.

If the locomotive loses a traction motor, you can report the percentage of lost traction in this section.

Exhibit 26. Horsepower Percentage Status

New Mechanical Subsystem Health Report ~ Horsepower

Equipment Configuration

Horsepower	4300
------------	------

Horsepower Status	Status
Engine HP Percent	<div> 100% (True 100%) 75% (75%-99%) 50% (50%-74%) 25% (25%-49%) <25% (1-24%) 0% (True 0%) </div>

Buttons: Add Mechanical Report, Submit Report

When you are done selecting the status percentage, select the **Add Mechanical Report** button to complete your report and select **Submit Report** to confirm this subsystem mechanical report.

Powered Axles

Powered Axles covers the traction motors statuses. Powered Axles Umler characteristics appear at the top in the **Equipment Configuration** section for the locomotive you have selected. In the **Status** column, the **Traction Motor Cutout Count** must be greater than zero and cannot be larger than the axle count in Umler (shown in the Equipment Configuration section). When **Other** is selected for **TM Cutout Reason**, you are required to enter a comment to explain the reason.

To report **Dynamic Brake with TM Cutout**, select the **Status** column. Select once for a green **Pass** indicator, select twice for a red **Exception** indicator, or select three times to clear.

Exhibit 27. Powered Axles Status

New Mechanical Subsystem Health Report ~ Powered Axles

Equipment Configuration

Axle Count	6
Powered Axles Count	6
Traction Motor Cutouts	Y
Traction Motor Type	AC
Truck Axle Count	3

Powered Axles Status	Status
Traction Motor Cutout Count	2
TM Cutout Reason	Other
Leave a comment Comment is required	
Dynamic Brake w/TM Cutout	Operable

Cancel

Add Mechanical Report

When you are done selecting all the elements that you want to report on, select the **Add Mechanical Report** button to complete your report and select **Submit Report** to confirm this subsystem mechanical report.

Toilet

Toilet covers the components of a toilet. Toilet Umler characteristics appear at the top in the **Equipment Configuration** section for the locomotive you have selected.

Select the **Status** column for the Toilet Status you want to report. Select once for a green **Pass** indicator, select twice for a red **Exception** indicator, or select three times to clear. For **Toilet**, select the appropriate status from the drop-down list.

Exhibit 28. Toilet Status

New Mechanical Subsystem Health Report ~ Toilet

Equipment Configuration

Toilet Type	C
-------------	---

Toilet Status	Status
Modesty Lock	Exception
Toilet	Pass
Toilet Pump	Mechanical Defect
	Sanitary Defect

Cancel

Add Mechanical Report

When you are done selecting all the elements that you want to report on, select the **Add Mechanical Report** button to complete your report and select **Submit Report** to confirm this subsystem mechanical report.

Video

Video covers the components of a video cameras in the locomotive. Video Umler characteristics appear at the top in the **Equipment Configuration** section for the locomotive you have selected.

Select the **Status** column for the Video Status you want to report. Select once for a green **Pass** indicator, select twice for a red **Exception** indicator, or select three times to clear.

Exhibit 29. Video Status

New Mechanical Subsystem Health Report ~ Video

Equipment Configuration

Camera Cab Image	RAVW
Camera Front Image	RAVW
Camera Rear Image	NTEQ

Video Status	Status
Camera Front Image	Exception
Camera Cab Image	Pass

Cancel

Add Mechanical Report

When you are done selecting all the elements that you want to report on, select the **Add Mechanical Report** button to complete your report and select **Submit Report** to confirm this subsystem mechanical report.

Each subsystem has a comment field ([Exhibit 23](#)) that allows you to enter a comment that describes the subsystem health. Select the comment icon (✎) in the **Comment** column to enter a comment. The Edit Subsystem Comment pop-up is displayed ([Exhibit 30](#)).

Exhibit 30. Edit Subsystem Comment Pop-up

Edit Subsystem Comment

Equipment NS 1000

Subsystem Distributed Power Comment

Distributed Power ok

20 / 1000

Cancel Update Comment

Enter a comment describing the subsystem health and select **Update Comment**. The New Subsystem Health Report pop-up is redisplayed with the Comment field completed ([Exhibit 31](#)).

Exhibit 31. New Health Report With Comments

New Health Report ~ NS 1001

SPLC * 417500000

Report Date 09/23/2022

NS 1001	
Severity	Comment
Pass	

Subsystem	Result	Comment
Cab Quality	<input type="radio"/>	
Distributed Power	<input checked="" type="radio"/> Pass	distributed power is ok
Dynamic Brakes	<input checked="" type="radio"/> Pass	dynamic brakes have been fixed
Energy Mgmt System	<input type="radio"/>	
Horsepower	<input type="radio"/>	
Positive Train Control System	<input checked="" type="radio"/> Pass	PTC issue resolved
Powered Axles	<input type="radio"/>	
Toilet	<input type="radio"/>	
Video	<input type="radio"/>	

Cancel Submit Report

Select **Submit Report**. A confirmation pop-up is displayed ([Exhibit 32](#)).

Exhibit 32. New Health Report Confirmation Pop-up







All finished?

Confirm the submission of the inspection report.

[Keep Editing](#) [Submit Report](#)

Select **Submit Report** again to save the report and update the Equipment page ([Exhibit 33](#)).

Exhibit 33. Subsystem Health Status Updated

Subsystem Status		
Subsystem	Health	
Video	 Pass	
Cab Quality	 Pass	
Distributed Power	 Pass	
Dynamic Brakes	 Pass	
Energy Mgmnt System	 Pass	
Horsepower	 Pass	

Tip! You can select the vertical ellipsis (⋮) and then select **History View** to see the status history.

Managing Foreign Repair Authorizations

Select **Manage Foreign Repair Authorizations** from the Locomotive Health and Status menu bar to view and grant foreign equipment repair authorizations to other railroads as well as view the railroads for which you have been granted foreign repair authorizations ([Exhibit 34](#)).

Exhibit 34. Manage Foreign Repair Authorizations Page

EquipmentManage Foreign Repair AuthorizationsUser Guide

BNSF Foreign Equipment Repair Authorizations

Grant authorization to perform FIO work (Job Code 1095)

Foreign Authorizations Granted to:

CSXT

NS

KCS

CN

UP

CP

My Foreign Authorizations

CSXT

NS

KCS

CN

UP

CP

The **Foreign Authorizations Granted to** section shows, in green, the railroads that you have granted authorization to perform foreign repairs.

You can grant authorizations to additional railroads by simply selecting their mark in the **Foreign Authorizations Granted to** section. Locomotive Health and Status displays a message confirming the change ([Exhibit 35](#)) and updates the **Foreign Authorizations Granted to** section ([Exhibit 36](#)).

Exhibit 35. Foreign Repair Authorization Granted Message

✓

UP authorization granted for job code 1095

Exhibit 36. Manage Foreign Repair Authorizations With Added Authorization

EquipmentManage Foreign Repair AuthorizationsUser Guide

BNSF Foreign Equipment Repair Authorizations

Grant authorization to perform FIO work (Job Code 1095)

Foreign Authorizations Granted to:

CSXT

NS

KCS

CN

UP

CP

My Foreign Authorizations

CSXT

NS

KCS

CN

UP

CP

You can remove the authorizations you have granted by selecting a green highlighted mark in the **Foreign Authorizations Granted to** section.

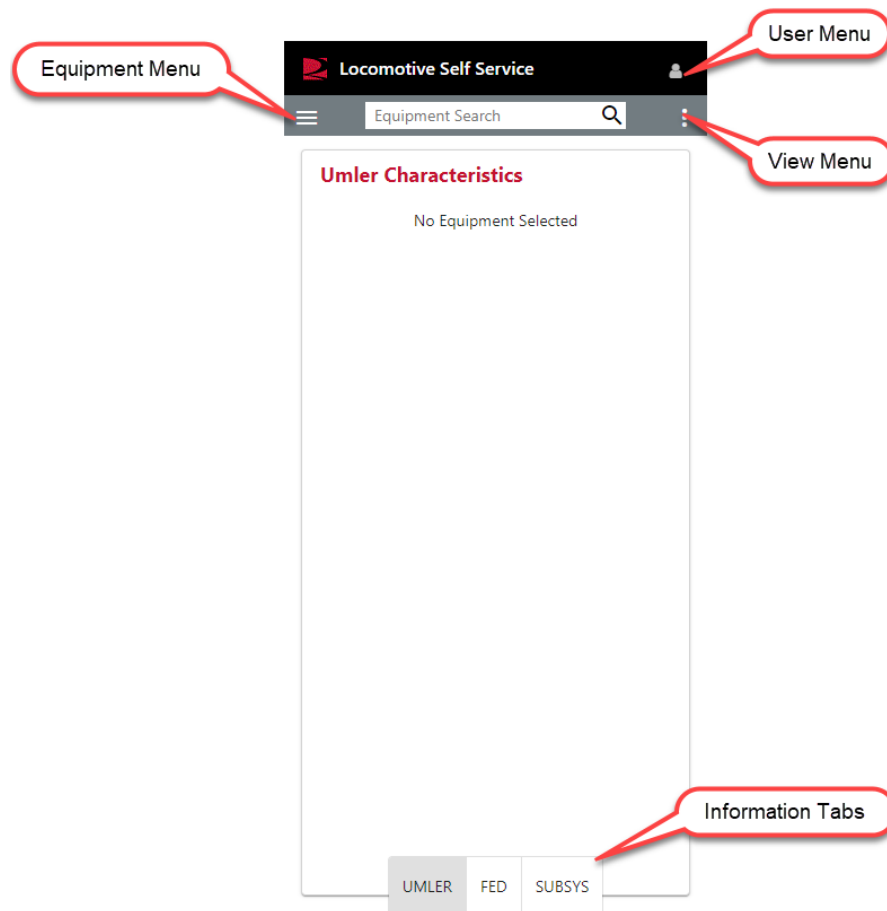
Managing Foreign Repair Authorizations

The **My Foreign Authorizations** section shows, in green, the railroads that have granted you authorization to perform foreign repairs. This section is view only – you cannot perform any actions in this section.

Appendix A. Using a Mobile Device

When you use Locomotive Health and Status on a mobile device, all of the functionality is available; however, there are a few differences in the user interface. [Exhibit 37](#) identifies the screen elements of the Locomotive Health and Status mobile interface.

Exhibit 37. Mobile Interface Screen Elements



The User Menu icon (👤) enables you to view your logged in user ID, view your mark, and select Sign Out.

The Equipment Menu icon (☰) enables you to see additional options, including:

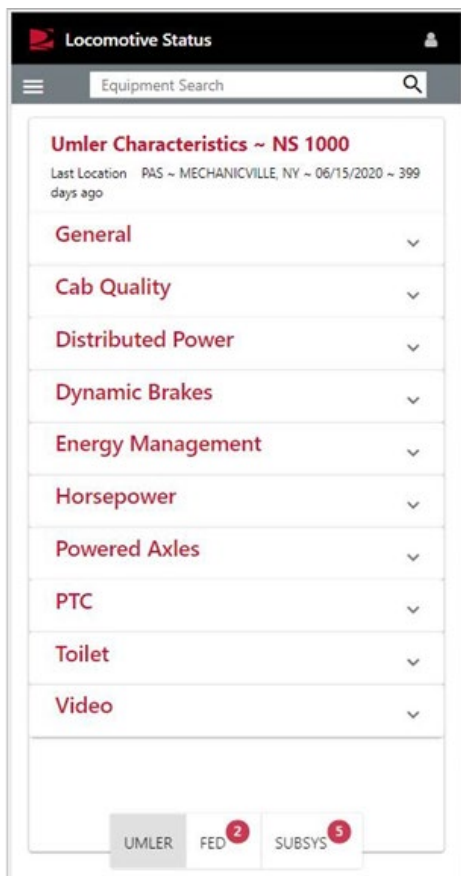
- Last Search – Redisplays the Equipment Search Results pop-up ([Exhibit 7](#)).
- Launch Umler – Performs an Umler Search for the selected piece of equipment (provided you have the proper Umler permissions).
- Equipment Status – Redisplays the Equipment Status (if you are on another screen).
- [Managing Foreign Repair Authorizations](#) – Enables you to view/grant foreign equipment repair authorizations to other railroads and view the railroads for which you have been granted foreign repair authorizations.

- User Guide – View the *Locomotive Health and Status User Guide* (this document).
- [Creating a Health Report](#) – Enables you to create a new Subsystem Health Report for the selected piece of equipment.

The View Menu (☰) enables you to switch views when viewing the Federal Inspection Status and the Subsystem Health Status. Depending on the status you are viewing, you can switch between **Exception View**, **Full Status View**, and **History View**. See [Viewing Federal Inspection Status Information](#) and [Viewing Subsystem Status Information](#) for more information.

The Information Tabs enable you to switch between viewing Umler Characteristics, Federal Inspection Status information, and Subsystem Status information ([Exhibit 38](#)).

Exhibit 38. Mobile Interface Showing Umler Characteristics



If numbers are present on the FED and/or SUBSYS tabs, this indicates the number of exceptions present on the tabs.