



MD-500 Reports User Guide



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Overview

MD-500 Report

MD-500 Reports are submitted to Railinc for analysis with the goal of reducing side frame and bolster related mechanical service interruptions (derailments and other line of road failures) and increasing yard and shop efficiency.

The MD-500 Report must be submitted to Railinc within 15 days of side frame or bolster removal.

Rules 47-E and 48-E in the *Field Manual of AAR Interchange Rules* establish the minimum mechanical requirements for removing broken and defective side frames and bolsters. Refer to Rules 47-E and 48-E in the *Field Manual of the AAR Interchange Rules* for more information.

Mechanical Defects for couplers are overseen by the AAR's Coupling System and Truck Casting Committee (CSTCC). For MD-500 related comments or questions, send an email to castings@aar.com. If you have questions about completing Form MD-500, send an email to castings@aar.com. If you experience any technical difficulties, call Railinc at 1-877-724-5462 or email the [Customer Success Center](#).

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

MD Reports is accessed using the Railinc Single Sign-On (SSO), which is accessed from the Railinc portal at <https://public.railinc.com>. The SSO Login is located at the upper right of the screen.

Register to Use Railinc SSO

For access to MD Reports and other Railinc applications, register to use Railinc Single Sign-On. Refer to the [Railinc Single Sign-On/Launch Pad User Guide](#) for information about the use of Railinc Single Sign-On.

Once SSO registration is complete, you request access to MD Reports within SSO.

Requesting MD Reports Access

After you receive authorization to use Railinc SSO, you must request general access to MD Reports by following instructions in the [Railinc Single Sign-On/Launch Pad User Guide](#). To access MD Reports, select one or more of the available roles. Your level of access to the MD Reports is determined when you request access through Railinc Single Sign-On. [Exhibit 1](#) shows a complete list of available roles as seen in SSO.

Exhibit 1. MD-500 Reports Applicable Permissions

The screenshot displays a web interface for requesting access to MD Reports. At the top, it says "MD Reports" and "Mechanical Defect Reporter". Below this is a progress bar with three steps: "1 Select Roles", "2 Confirm", and "3 Done". The "1 Select Roles" step is active. A checkbox labeled "MD-500 Reporter (MARK required)" is present, with a description below it: "User responsible for submitting MD-500 forms". There is a "Comments..." field with a character count of "0/255". At the bottom right, there are two buttons: a red "Return" button and a grey "Next" button.

MD-500 User Roles

Your assigned user role determines what functions you can perform. User roles are assigned by Railinc or by your company administrator through the Single Sign-On interface. The following user roles can be assigned to users of MD-500 Reports, with the subsequently listed functions:

MD-500 Reporter - User can submit MD-500 forms on behalf of a company (reporter mark). The following access is available for this role within the user's company mark. This permission is approved by the MD Reports company admin.

- Submit Reports
- Search Reports
- View Reports
- Edit Reports
- Upload Images to Reports
- Save Draft
- View Drafts
- Update Draft
- Delete Reports
- Add/Edit Trademarks
- Add/Edit Reconditioner

MD-500 Report Reviewer - User can view and edit MD-500 reports belonging to their company (reviewer mark).

- Search Reports
- View Reports
- Edit Reports
- Upload Images to Reports
- Save Draft
- View (your own) Drafts
- Update Draft
- Add/Edit Trademarks
- Add/Edit Reconditioner

MD-11 Report Editor - User (TTCI) can edit all submitted MD-500 reports.

- Search Reports
- View Reports
- Edit Reports
- Delete Reports

MD-11 Report Viewer - User (CSTCC members) can view all submitted MD-500 reports.

- Search Reports
- View Reports

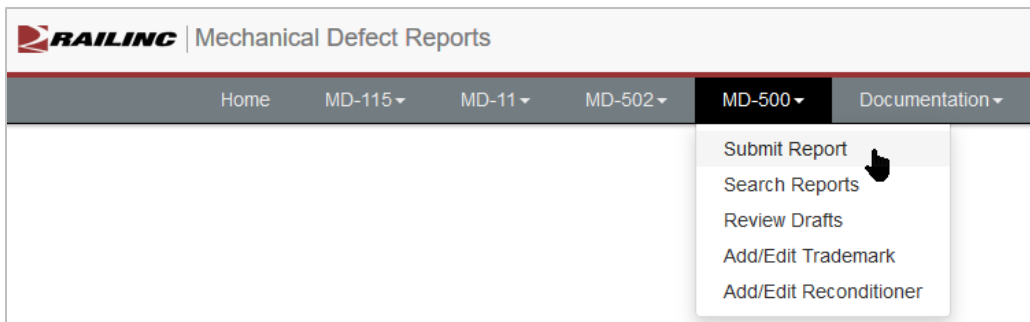
Logging In

To log into the MD Reports:

1. Open your internet browser and enter <https://public.railinc.com> to open the Railinc website.
2. Select the **Customer Login** link in the upper right of the page. The Account Access page is displayed.
3. Enter your **User ID** and **Password**. Select **Sign In**. The Railinc Launch Pad is displayed.
4. In **My Applications**, select **MD Reports**.
5. The MD Reports Home page is displayed. The menu items available differ depending on your role. [Exhibit 2](#) shows the menu items that support MD Reports functionality.

MD-500 Reports Menu

Exhibit 2. MD-500 Reports Menu Items



Logging Out

Select the **Sign Out** link in the upper right corner to end a MD Reports session. You are returned to the SSO Login Page.

MD-500 Report

Submit Report

You must be assigned to the MD-500 Reporter role to save drafts and submit MD-500 Reports.

Use the following procedure to complete Form MD-500:

1. Log into MD Reports as described in [Logging In](#). The MD Reports Home page is displayed (see [Exhibit 2](#)).
2. From the menu bar, select **MD-500 > Submit Report**. The Submit MD-500 Report page is displayed (see [Exhibit 3](#)). All required fields are marked with a red asterisk (*). See the [MD-500 Specification Document](#) for details about expected field values.

Exhibit 3. Submit MD-500 Report

Submit MD-500 Defect Report

Reporter Contact Information

Name: *

Phone Number: *

City: *

Country: * State/Province: *

Email: *

Railroad/Company: *

Equipment Details

Equipment Initial: * Equipment Number: *

Kind of Equipment: *

Truck Position: * Gross Rail Load: *

Casting Information

Side Frame or Bolster: * Side Frame Bolster Side of Equipment: * Left Right

Date Manufactured: * ICL Mark: * Yes No

AAR ID: * AAR Design Feature Code: *

Manufacturing Serial Number: * Manufacturing Pattern: *

Unknown / Missing / Illegible

Component ID Comp. Code: Component ID Number:

Trademark: *

To look up Trademark, click 'Lookup'. If Trademark is not listed, select 'Other' and type the Trademark in the Trademark Other field below. An image of the Other Trademark should be uploaded along with the Defect Images at the bottom of the form.

Reconditioned: * Yes No

Reconditioned Stamped Date and Stamped Mark are required fields if Reconditioned Yes is selected. To search all reconditioned stamped marks, click Lookup.

Reconditioned Stamped Date: *

Reconditioned Stamped Mark: *

Failure Information

Broken or Cracked: * Broken Cracked Broken means a fracture resulting in complete separation into parts.

Why Made Code: *

Method of Detection: * Number of Equipment Derailed:

Failure Date: * Repair Date: *

Was Car Loaded or Empty? Loaded Empty Unknown

Indicate defect location on color-coded side frame or bolster. If cracked, enter crack length (inches) for each location. Use the ◀ and ▶ icons to scroll through images. If image is incorrect, choose appropriate side frame or bolster in 'Casting Information' section. If defect location cannot be identified, select 'Other' and provide 'Additional Comments'.

Broken or Cracked Locations: *

Other Location (O)

Additional Comments are required if 'Other Location' is selected for Broken or Cracked Location.

Side Frame

If the displayed image is incorrect, you can change the image by selecting the proper radio button for side frame or bolster in Casting Information section.

Additional Comments:

Side Frame And Bolster Image Attachments
 It is recommended your attachments include at least 5-6 pictures of the failure. Recommended pictures are: overall of side frame or bolster, close-up of damaged area (specifically of fracture face), marks on the top, marks on the bottom, reconditioned stamp, Trademark. The following formats are accepted: .JPEG, .GIF, .PNG. Each image must be less than or equal to 5MB in size. A maximum of 15 images are allowed.

Attachment File: No file selected.

Repair Key Information

Repair Key:

3. The **Reporter Contact Information** section on this page is prepopulated based on information in your SSO profile. Changing your contact information for this report does not change the information in your SSO profile. Enter the **Railroad/Company**.
4. Enter the **Equipment Details**: When the equipment initials and number are found in Umler, the **Kind of Equipment** and **Gross Rail Load** are automatically populated. If the car is not found, enter these fields. Enter the **Truck Position** (i.e., **A** or **B**).
5. In the **Casting Information** section, select **Side Frame** or **Bolster**. Only one can be selected per submission. When **Side Frame** is selected, the **Side of Equipment** field is added and is required. The **AAR ID** must be up to 9 characters. When it is missing, enter **XXXXXX**. The **AAR Design Feature Code** must be up to 11 characters. When it is missing, enter **XXXXXX**.
6. The **Manufacturing Serial Number** and the **Manufacturing Pattern** must be up to 6 characters. When they are missing, enter **XXXXXX** or click the **Unknown/Missing/Illegible** link.

7. Click the **Lookup** button to select the **Trademark**. If the **Trademark** is not listed, scroll to the bottom and save your report as draft. From the menu, select **MD-500 > Add/Edit the Trademark** to add the trademark. See [Add/Edit Trademark](#) for more details.
8. When **Reconditioned** is **Yes**, the **Reconditioned Stamped Date and Mark** fields are required. When the **Reconditioned Stamped Date** month and/or year is unknown, then select **XX** for month and **XXXX** for the year from the drop-down list. Click the **Lookup** button to select the **Reconditioning Stamp**. If the **Stamp** is not listed, scroll to the bottom and save your report as draft. From the menu, select **MD-500 > Add/Edit Reconditioner** to add the stamp. See [Add/Edit Reconditioner](#) for more details.
9. In the **Failure Information** section, selecting **Broken** means a complete separation of parts. Select the **Why Made Code** and **Method of Detection**. When **Derailment** is selected, enter the **Number of Equipment Derailed**.
10. Enter **Failure and Repair Dates**. The **Repair Date** must be after the **Failure Date** and **Reconditioned Date**.
11. Click through the **Broken or Cracked Locations** and select the color-coded area of the image that best represents the broken or cracked location of the side frame or bolster. If cracked, enter the length of the crack in inches (e.g., .5). If the broken or cracked area is not represented by any of the colors, choose **Other Location** and enter the location in the **Additional Comments** field, along with comments for the any other information in the form that you want to provide.
12. To add attachments, select **Browse** near the bottom of the Submit MD-500 Report form. It is recommended that you attach at least 5-6 pictures of the failure. Recommended pictures are the overall side frame or bolster, damaged area, marks on the bottom, reconditioned stamp and trademark image. Attach up to 15 images.
 - a. Attach files in the following formats: .JPEG, .PNG, .GIF. Each image has a 5 MB size limit.
 - b. Select **Remove** to remove an attached file from the form.
 - c. The recommended attachments are requested but are not required to submit Form MD-500.

Exhibit 4. Attachment Added

Side Frame And Bolster Image Attachments

It is recommended your attachments include at least 5-6 pictures of the failure. Recommended pictures are: overall of side frame or bolster, close-up of damaged area (specifically of fracture face), marks on the top, marks on the bottom, reconditioned stamp, Trademark. The following formats are accepted: .JPEG, .GIF, .PNG. Each image must be less than or equal to 5MB in size. A maximum of 15 images are allowed.

Attachment File: No file selected.

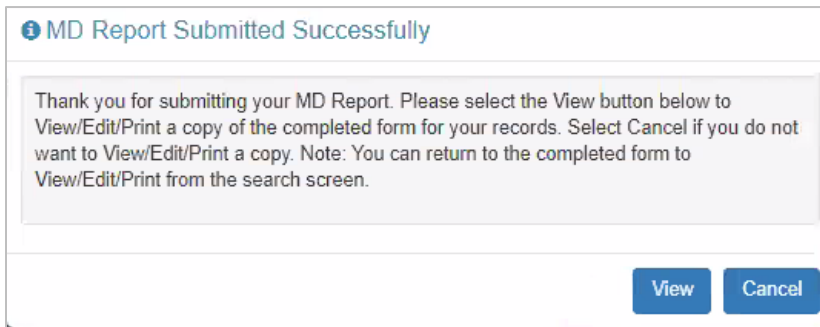
Files Attached:

File No.	File Name	Action
1	SideFrameExample.PNG	<input type="button" value="Remove"/>

13. MD-500 gives you the opportunity to customize a **Repair Key** for each report to help you keep track of each MD-500 submission. For example, you may want to name it with your name, the equipment ID and the date. Select the **Show** link to enter the field. When this field is left blank, the system will auto-generate a Repair Key for you.
14. Save the form as draft by clicking the **Save Draft** button. The draft is kept for 7 days. Reporters have the ability to save, view and edit drafts that they have created.

- When you have completed the form and are ready to submit, click **Submit**. A submission success message is displayed.

Exhibit 5. Successful MD Report Submission



- Select **View** to View/Edit/Print a copy of the completed form for your records. Select **Cancel** to close the box.

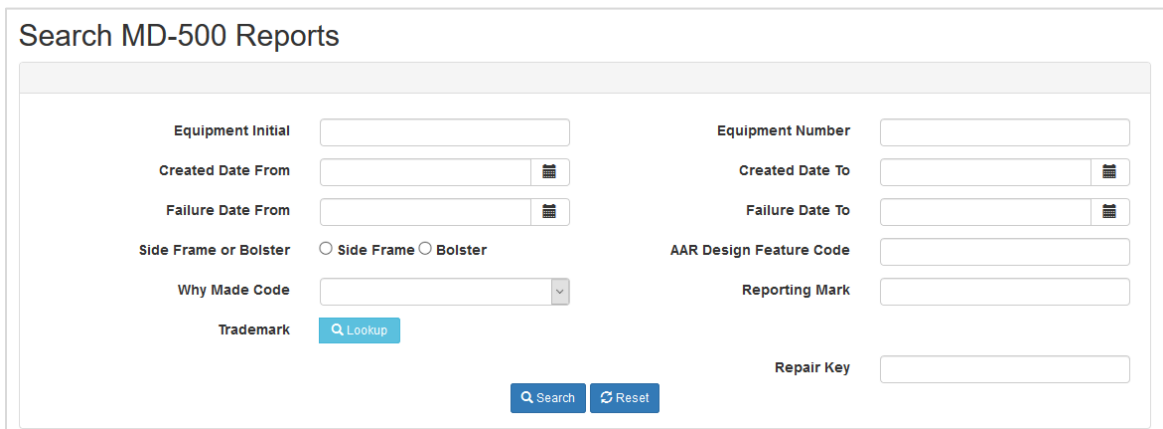
Search Reports

To search MD-500, you must be assigned to one or more of these roles: the MD-500 Reporter or MD-500 Report Reviewer for the company mark.

Use the following procedure to search for MD-500 Reports:

- Log into the MD Reports as described in [Logging In](#). The MD Reports Home page is displayed (see [Exhibit 2](#)).
- From the menu bar, select **MD-500 > Search Reports**. The **Search MD-500 Reports** page is displayed:

Exhibit 6. Search MD-500 Reports



- To search for one or more MD-500 Reports, enter any or no criteria in the fields and select **Search**.
- An example of search results are displayed in the image below.

Exhibit 7. Search Results

Search MD-500 Reports

Equipment Initial

Created Date From

Failure Date From

Side Frame or Bolster Side Frame Bolster

Why Made Code

Trademark [Lookup](#)

Equipment Number

Created Date To

Failure Date To

AAR Design Feature Code

Reporting Mark

Repair Key

[Search](#) [Reset](#)

Total Items: 31621 | [Export to CSV](#)

Failure Date	Equipment Initial	Equipment Number	Equipment Type	AAR ID	AAR Design Feature Code	MFR Pattern	Trademark	Reconditioner	Month Cast	Year Cast	WMC	Damage Locations	Images	Details
2021-Aug-02	TILX	0000000783	C	A12345	F123456	XXXXXX	NCI		11	2005	02	E	0	View
2021-Aug-03	TILX	0000000783	C	A12345	F123456	XXXXXX	NCI		11	2006	02	E	0	View
2021-Aug-02	ABOX	0000050051	B	A12345	B12345	123	NCI		04	2020	02	B,O	0	View
2021-Jul-20	DMIX	0000190162	T	ASDFGW	FD	ASDF	ASF	BRMD	03	2005	02	A	0	View
2021-Jul-20	ABOX	0000050054	B	A1234	F12345	XXXXXX	Dominion		12	2011	02	E,D	0	View
2021-Jul-19	ABOX	0000050054	B	A1234	F12345	XXXXXX	NCI		11	2008	41	E	0	View

- To view a report, click the **View** link for the appropriate row located in the **Details** column.

Exhibit 8. View Report from Search Results Button Panel

[← Search Results](#)
[Print](#)
[✖ Delete](#)
[✎ Edit](#)

- Scroll to the bottom of the page and select the appropriate button to **Print** or return to **Search Results**.
- Select **Delete** to delete the report. See [Delete MD-500 Reports](#) for details about deleting reports.
- Select **Edit** to edit the report. See [Edit MD-500 Reports](#) for details about editing reports.

Edit Reports

To edit MD-500 Reports, you must be assigned to one or more of these roles: the MD-500 Reporter or MD-500 Report Reviewer for the company mark.

Use the following procedure to edit MD-500 Reports:

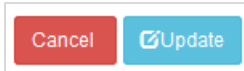
- Log into the MD Reports as described in [Logging In](#). The MD Reports Home page is displayed (see [Exhibit 2](#)).
- From the menu bar, select **MD-500 > Search Reports**. Search for reports as described in [Search MD-500 Reports](#).
- To open a report, click the **View** link for the appropriate row located in the **Details** column.
- Scroll to the bottom of the report and click the **Edit** button.

Exhibit 9. Edit/Delete Button Panel



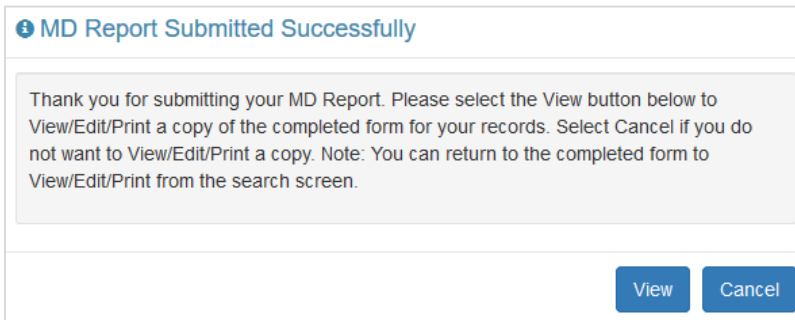
5. The Update MD-500 Report page displays. All fields are editable except for **Repair Key** and **Railroad/Company** (Reporter Mark).
6. Edit the necessary fields, then scroll to the bottom of the report. Click **Update**.

Exhibit 10. Update Button Panel



7. When you have completed the form, click **Update**. A submission success message is displayed.

Exhibit 11. Update Successful Submission



Review Drafts

To review MD-500 draft reports, you must be assigned to the MD-500 Reporter role for the company mark.

Use the following procedure to review MD-500 draft reports:

1. Log into the MD Reports as described in [Logging In](#). The MD Reports Home page is displayed (see [Exhibit 2](#)).
2. From the menu bar, select **MD-500 > Review Drafts**. Available draft reports for your company mark are listed on the **MD-500 View Drafts** page.
3. To open a report, click the **View** link for the appropriate row located in the **Details** column.

Exhibit 12. View Drafts

MD500 View Drafts									Total Items: 1
Create Date	Last Modified Date	Date of Failure	Equipment Initial	Equipment Number	Kind of Equipment	Side Frame or Bolster	Date Manufactured	Attachments	Details
2020-06-23	2020-06-23	2020-06-09	RAIL	0000000050	B	S	XX / 2007	1	View

4. Scroll to the bottom of the report and click the **Edit** button. See [Edit MD-500 Reports](#) for details.

Exhibit 13. View Button Panel

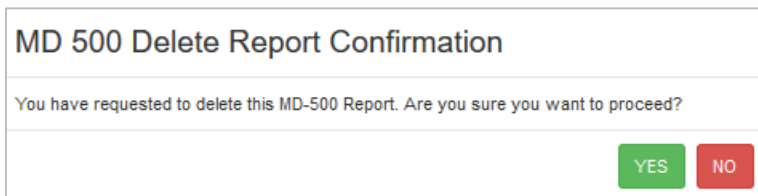
5. Once you've made your updates, select **Update Draft** to save your draft or **Submit** to submit the report. Once the report is submitted, the **Update Draft** button is no longer available when viewing the report.

Delete Reports

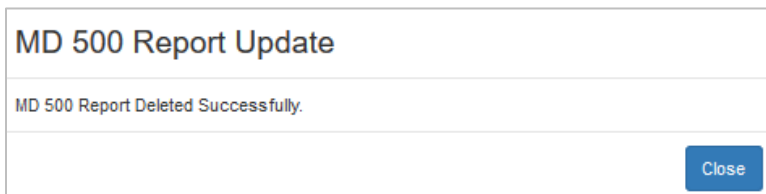
Users with MD-500 Reporter permissions have access rights to perform delete functions for their company mark in MD-500 Reports. However, users with MD-500 Report Reviewer permissions do not have access to delete reports.

Use the following procedure to delete MD-500 Reports:

1. Log into the MD Reports as described in [Logging In](#). The MD Reports Home page is displayed (see [Exhibit 2](#)).
2. From the menu bar, select **MD-500 > Search Reports**. Search for reports as described in [Search MD-500 Reports](#).
3. To open a report, click the **View** link for the appropriate row located in the **Details** column.
4. Scroll to the bottom of the report and click the **Delete** button ([Exhibit 8](#)).
5. A **Delete Confirmation** pop-up box appears. Click **Yes** to make the changes or **No** to cancel.

Exhibit 14. Delete Report Confirmation

6. If you click **Yes**, a confirmation pop-up box appears to indicate the report has been successfully deleted. Click **Close** to return to the Search Reports page.

Exhibit 15. Delete Report Success Message

Add/Edit Trademark

To add or edit a trademark in MD-500 Reports, you must be assigned to one or more of these roles: the MD-500 Reporter or MD-500 Report Reviewer for the company mark. Both roles can add trademarks and both roles can edit their own. Reviewers can edit any trademarks for their company.

When the **Trademark** is not listed in the MD-500 form, or if an existing trademark needs to be updated, use the following procedure:

1. Log into the MD Reports as described in [Logging In](#). The MD Reports Home page is displayed (see [Exhibit 2](#)).
2. From the menu, select **MD-500 > Add/Edit Trademark**.

Exhibit 16. Add Trademark




Add Trademark

Trademark name/Description:

Trademark Abv/One Word Description: Please provide a one word name to identify this Trademark in the Search Results Page

City: Add a City for Companies with Multiple Locations

Image of Trademark: No file selected.

Description	Who Can Use This Trademark	Useable/Editable	Image
ABC-NACO (formerly National Castings), Cicero, (NCI)	CP	Edit	
ABC-NACO (formerly National Castings), Sahagun	Industry	Edit	
ABC-NACO (formerly National Castings), Dominion	Industry	Edit	

3. To add a new trademark to MD-500:
 - a. Enter the **Trademark Name/Description**.
 - b. Enter the **Trademark Abbreviation/One Word Description**.
 - c. For companies with multiple locations, enter the **City**.
 - d. Select **Browse** to upload the **Image of Trademark**. Find and select the image on your computer.
 - e. Select **Submit Trademark**. The Trademark Submitted message appears. If the trademark is not used by the end of the day, it will be automatically deleted.

Exhibit 17. Trademark Submitted Successfully

Trademark Submitted. If the Trademark is not used by the end of the day, the Trademark will be automatically deleted.

4. To edit a trademark that exists in MD-500:
 - a. Select the **Edit** button to open and update the trademark.
 - b. Make your updates and select **Update Trademark** to save your changes. The Trademark Submitted message appears. MD-500 reports that use the trademark will be automatically updated. If the trademark is not used in at least one MD-500 report by the end of the day, it will be automatically deleted.
 - c. Select **Reset** to clear form and messages.


Exhibit 18. Update Trademark


Update Trademark

Trademark name/Description:

Trademark Abv/One Word Description: Please provide a one word name to identify this Trademark in the Search Results Page

Replacement Image: No file selected.

Current Image: 

Description	Who Can Use This Trademark	Useable/Editable	Image
ABC-NACO (formerly National Castings),Cicero,(NCI)	CP	Edit	

Add/Edit Reconditioner

To add or edit a reconditioner stamp in MD-500 Reports, you must be assigned to one or more of these roles: the MD-500 Reporter or MD-500 Report Reviewer for the company mark. Both roles can add stamps and both roles can edit their own. Reviewers can edit any stamps for their company.

When the **Reconditioner Stamp** is not listed in the MD-500 form, or if an existing stamp needs to be updated, use the following procedure:

1. Log into the MD Reports as described in [Logging In](#). The MD Reports Home page is displayed (see [Exhibit 2](#)).
2. From the menu, select. From the menu, select **MD-500 > Add/Edit Reconditioner**.

Exhibit 19. Add Reconditioner Stamp

Add Reconditioner



Recondition Stamp MARK:

Reconditioner name:

City: State:


Add a City and State for Companies with Multiple Locations

Image of Reconditioner: No file selected.

Description	Who Can Use This Reconditioner	Useable/Editable	Image
136	Industry	Edit	No Image
AMERICAN INDUSTRIES (Closed 02-2020),ROANOKE,VA	Industry	Edit	No Image
AMERICAN INDUSTRIES.SHARON,PA	Industry	Edit	No Image
ALTOONA RAILCAR REPAIR,ALTOONA,PA	Industry	Edit	No Image
ALABAMA RAILCAR SERVICES (Dropped-Unkown),OZARK,AL	Industry	Edit	No Image
ARIZONA RAILCAR,TUCSON,AZ	Industry	Edit	No Image
ALL STAR RAILROAD PRODUCTS, INC. (Closed-08/2007),FONTANA,CA	Industry	Edit	
ALL STAR RR,Santa Barbara, CA	Industry	Edit	

3. To add a new stamp to MD-500:
 - a. Enter the **Recondition Stamp MARK**.
 - b. Enter the **Reconditioner Name**.
 - c. For companies with multiple locations, enter the **City and State**.
 - d. Select **Browse** to upload the **Image of Reconditioner**. Find and select the image on your computer.
 - e. Select **Submit Reconditioner**. The Reconditioner Submitted message appears. If the reconditioner is not used by the end of the day, it will be automatically deleted.

Exhibit 20. Stamp Submitted Successfully

 Reconditioner Submitted. If the Reconditioner is not used by the end of the day, the Reconditioner will be automatically deleted.

4. To edit a stamp that exists in MD-500:
 - a. Select the **Edit** button to open and update the trademark.
 - b. Make your updates and select **Update Reconditioner** to save your changes. The Reconditioner Submitted message appears. MD-500 reports that use the reconditioner stamp will be automatically updated. If the stamp is not used in at least one MD-500 report by the end of the day, it will be automatically deleted.
 - c. Select **Reset** to clear form and messages.


Exhibit 21. Update Reconditioner Stamp

Update Reconditioner

Recondition Stamp MARK:

Reconditioner name:

Image of Reconditioner: ASM Stamp.png

 File Attached

Description	Who Can Use This Reconditioner	Useable/Editable	Image
ALL STAR RR,Santa Barbara, CA	Industry	Edit	No Image