



Minor Defect Record System

Work Instruction

IT | System Group

A web application that provides comprehensive functionality for managing and analyzing minor defects on production lines. Key features include:

- **Defect Tracking:** Efficiently record and monitor defects per production line.
- **Data Management:** Capture essential details such as date detected, car maker and model, line number, process, product number, lot number, serial number, defect category, defect details, treatment content, sequence and connector numbers, and personnel involved in repair and verification.
- **Trend Analysis:** Utilize recorded data to analyze trends and visualize performance metrics.
- **Reporting:** Generate insightful reports to aid in decision-making and quality control.

This system is designed to streamline defect management and enhance data-driven decision-making through effective tracking and analysis.

I. Viewing Page

MINOR DEFECT RECORD SYSTEM

Wednesday, September 4, 2024 | 1:42:31 PM

A

Line No. Scan here Product Number Lot No. Serial No.

Date From * Date To * Process Defect Category Defect Details

2024-05-01 2024-09-04 Select Process Select Defect Category Select Defect Details Search

Note: The records displayed below are for today's date. Clear Refresh Export Add Record

B

Minor Defect Record Table

#	Datetime Detected	Car Maker	Car Model	Line No.	Process	Group	Shift	Product Number	Lot Number	Serial Number	Defect Category	Defect
1	2024-07-10 08:30:14.000	TOYOTA	920B_INP	4128	Dimension_1	B	DS	82141-AK170C-P	59AAA8	00064	Insufficient taping (with dimension requirement)	Branch
2	2024-07-10 08:29:47.000	TOYOTA	920B_INP	4128	Dimension_1	B	DS	82141-AK140C-P	59A9W5	00049	Clamp Defect	Half locked clamp
3	2024-07-10 08:28:34.000	TOYOTA	920B_INP	4128	Dimension_1	B	DS	82141-AK140C-P	59A9W5	00049	Clamp Defect	Long clamp tail
4	2024-07-10 08:24:06.000	TOYOTA	920B_INP	4128	Dimension_1	B	DS	82141-AK170C-P	59AAA8	00068	Missing Tape	Missing spot tape
5	2024-07-10 07:56:06.000	TOYOTA	920B_INP	4128	Dimension_1	B	DS	82141-AK170C-P	59AAA8	00062	Insufficient taping (with dimension requirement)	Combine
6	2024-07-10 07:55:08.000	TOYOTA	920B_INP	4128	ECT_2	B	DS	82141-AK170C-P	59AAA7	00003	Exposed wire/junction	Junction
7	2024-07-10 05:14:08.000	TOYOTA	920B_INP	4128	Appearance	A	NS	82141-AKF00C-P	59AAA6	00062	Insufficient taping	Branch
8	2024-07-10 05:10:53.000	TOYOTA	920B_INP	4128	Appearance	A	NS	82141-AKF00C-P	59AAA6	00050	Exposed wire/junction	Junction

C

Total Record: 1043

Load more

Figure 1. Viewer Page

This page offers a comprehensive overview of the system, structured to enhance usability and efficiency:

1.A. At the top of the page, the user will find a set of search fields designed to help them quickly locate specific records. These fields allow them to filter data based on various criteria, making it easier to find relevant defect records based on above parameters. By default, the date from and date to is set to current date.

1.B. Below the search fields, the main section of the page features a detailed table displaying the defect records that match the search criteria. This table is organized to provide a clear and concise view of all added defect records. The table also includes load more to help users to navigate through large sets of records efficiently.

1.C. In the lower right of the table, it displays the total count of records. These changes based on the data shown in the table.

II. Adding of Record

Minor Defect Record

Date Detected * 2024-09-04 01:43:39 PM Car Maker * TOYOTA Car Model * 920B_INP

Line No. * 4128 Process * Dimension_1 Group * A Shift * DS

Scan QR-Code

Product Number * N463-67-010A(4)-1 Lot No. * 5998UD Serial No. * 00014

Defect Category * Foreign material Defect Details * Bandcut Treatment Content of Defect * Remove and dispose foreign material

Sequence No. * 45 Connector No. * 67 Repaired By (Pd Jr.Staff/Staff ID No.) * 13-0217 Verified By (Qa Jr.Staff/Staff ID No.) * 21-0215

Clear All Add Record

#	Datetime Detected	Car Maker	Car Model	Line No.	Process	Group	Shift	Product Number	Lot Number	Serial Number	Defect Category	Defect Details	Sequence No.	Connector No.
1	2024-07-10 08:30:14.000	TOYOTA	920B_INP	4128	ECT_2	B	DS	82141-AK170C-P	59AAA7	00008	Exposed wire/junction			
2	2024-07-10 08:29:47.000	TOYOTA	920B_INP	4128	Appearance	A	NS	82141-AKF00C-P	59AAA6	00062	Insufficient taping			
3	2024-07-10 08:28:34.000	TOYOTA	920B_INP	4128	Appearance	A	NS	82141-AKF00C-P	59AAA6	00050	Exposed wire/junction			
4	2024-07-10 08:24:06.000	TOYOTA	920B_INP	4128	Appearance	A	NS	82141-AKF00C-P	59AAA6	00050	Exposed wire/junction			
5	2024-07-10 07:56:06.000	TOYOTA	920B_INP	4128	Appearance	A	NS	82141-AKF00C-P	59AAA6	00050	Exposed wire/junction			
6	2024-07-10 07:55:08.000	TOYOTA	920B_INP	4128	Appearance	A	NS	82141-AKF00C-P	59AAA6	00050	Exposed wire/junction			
7	2024-07-10 05:14:08.000	TOYOTA	920B_INP	4128	Appearance	A	NS	82141-AKF00C-P	59AAA6	00050	Exposed wire/junction			
8	2024-07-10 05:10:53.000	TOYOTA	920B_INP	4128	Appearance	A	NS	82141-AKF00C-P	59AAA6	00050	Exposed wire/junction			

Load more

Total Record: 1043

Figure 2. Add Record

Upon clicking the add record button [**+ Add Record**], the add record form will appear. This contains the following:

2.A. The datetime detected is auto-generated. The car maker and model are automatically fetched based on the selected line number. The list of processes is based on the processes associated with the selected line number. The shift is also automated.

2.B. When a harness is barcoded, its product name, lot number, and serial number will be fetched automatically and displayed in their designated input fields.

2.C. When a defect category is selected, the corresponding defect details will be displayed in the dropdown menu. Similarly, the treatment content for the defect will be based on the selected defect details.

III. Search Fields

Minor Defect Record System

Line No. 4128 Scan here Product Number Lot No. Serial No.

Date From * 2024-06-01 Date To * 2024-06-30 Process Select Process Defect Category Defect Details Search

Note: The records displayed below are for today's date. Clear Refresh Export + Add Record

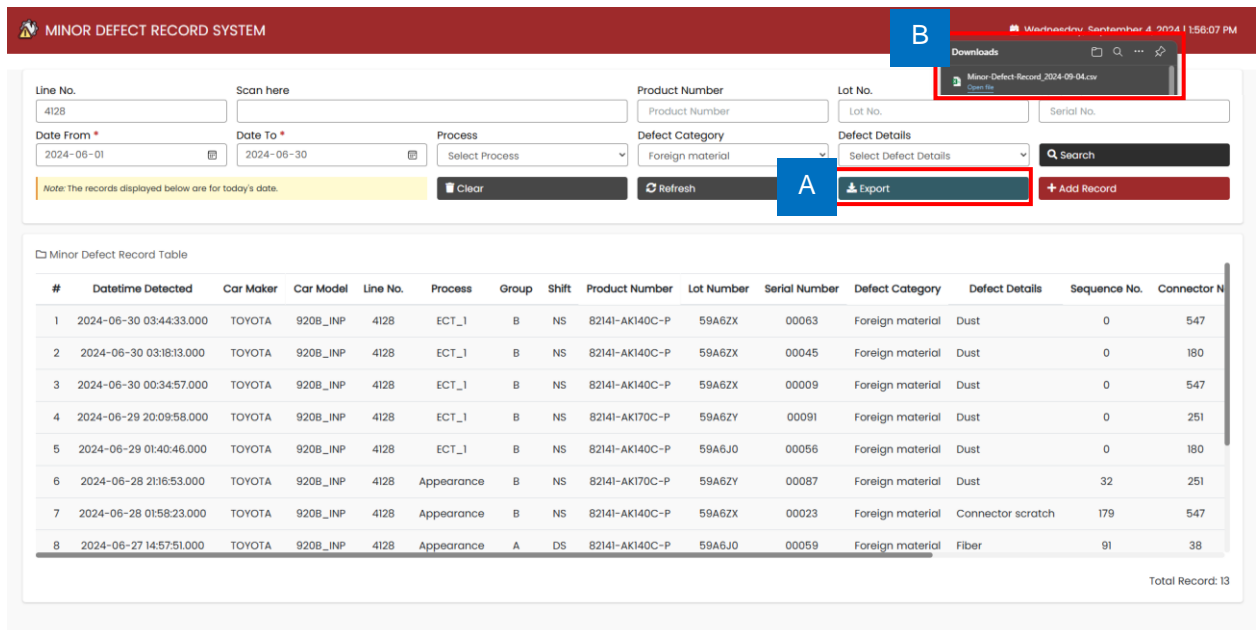
#	Datetime Detected	Car Maker	Car Model	Line No.	Process	Group	Shift	Product Number	Lot Number	Serial Number	Defect Category	Defect Details	Sequence No.	Connector No.
1	2024-06-30 03:44:33.000	TOYOTA	920B_INP	4128	ECT_1	B	NS	82141-AK140C-P	59A6ZX	00063	Foreign material	Dust	0	547
2	2024-06-30 03:38:13.000	TOYOTA	920B_INP	4128	ECT_1	B	NS	82141-AK140C-P	59A6ZX	00045	Foreign material	Dust	0	180
3	2024-06-30 00:34:57.000	TOYOTA	920B_INP	4128	ECT_1	B	NS	82141-AK140C-P	59A6ZX	00009	Foreign material	Dust	0	547

Figure 3. Search

3.A. In the highlighted part, the user will find a range of search fields designed to help them efficiently locate specific records. These fields enable the user to filter data by various criteria, allowing them to swiftly find relevant defect records based on parameters such as line no., product name, lot no., serial

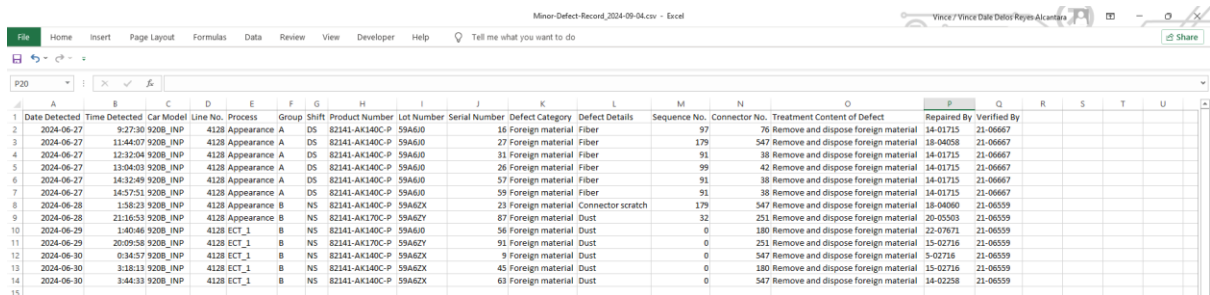
no. (these can be done manually or scan harness and it will search automatically), date from, date to, process, defect category, and defect details. By default, the date from and date to is set to current date.

IV. Export Record



The screenshot shows the 'MINOR DEFECT RECORD SYSTEM' interface. At the top, there's a navigation bar with a 'B' icon. Below it, a search and filter section contains fields for Line No., Scan here, Product Number, Lot No., Date From, Date To, Process, Defect Category, and Defect Details. A red box labeled 'A' highlights the 'Export' button. Another red box labeled 'B' highlights the downloaded file 'Minor-Defect-Record_2024-09-04.csv' in the Windows file explorer. Below the search section is a table titled 'Minor Defect Record Table' with columns: #, Datetime Detected, Car Maker, Car Model, Line No., Process, Group, Shift, Product Number, Lot Number, Serial Number, Defect Category, Defect Details, Sequence No., and Connector No. The table contains 8 rows of data. At the bottom right, it says 'Total Record: 13'.

Figure 4. Export



The screenshot shows the exported data in an Excel spreadsheet. The table has the following columns: Date Detected, Time Detected, Car Model, Line No., Process, Group, Shift, Product Number, Lot Number, Serial Number, Defect Category, Defect Details, Sequence No., Connector No., Treatment Content of Defect, Repaired By, and Verified By. The table contains 14 rows of data.

Figure 5. Exported Data

4.A. Once the user has filtered the data as needed, click the export button to download the file. The file will contain the filtered data from the table.

4.B. The downloaded file will be named based on the date of download, indicating the time it was saved.