

Tank Car Integrated Database (TCID) Data Specification Manual



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TCID Fields and Inspection Report Data Rules

Batch and Interface Inspection Form Part 1

The following tables detail the allowable fields in a batch car submission to TCID and in the TCID interface. For batch upload, the Batch Field Name must be included in the first row of all batch file submissions. An [example batch file](#) is located on Railinc.com.

The first field, INSP_ID is user assigned and designates rows of data that belong to the same event.

Mandatory fields for batch upload contain (●) in the data rules column.

	Batch Field Name	Interface Field Name	Description	Data Rules
1	INSP_ID		Unique inspection ID, assigned by submitting party for each event, for batch upload files	(●) Alpha-Numeric, 12 characters max
2	INSPREASON	Inspection/Report Type	Reason for Inspection	(●) Numeric, 2 digit max from 1 to 63 corresponding to the bitwise or one of these six options. When two reasons are applicable, enter the total value (e.g., Conversion and Alteration value [1+2] is 3): <ul style="list-style-type: none"> • Conversion: 1 • Alteration: 2 • Stub Sill Inspection: 4 • Tank Qualification: 8 • Other: 16 • Welded Repair: 32 Select appropriate checkbox(es) for this field.
3	CARMARK	Equipment Initial	The reporting mark stenciled on the car	(●) Alpha-Numeric, 4 characters max; If an additional mark is needed, contact the company administrator. See App C for details.
4	CARNUM	Equipment Number	The equipment number stenciled on the car	(●) Numeric, 6 digit max
5	SHOPCOMP	Station Stencil	Station stencil of inspecting company or facility	(●) Alpha-Numeric, 7 characters max; Select entry for this field from a drop-down list. See App P for details.
6	CLASS	Stencil Class	Current car specification, as stenciled, prior to any R1 modifications	(●) Alpha-Numeric, 11 characters max; Select entry for this field from a drop-down list. See App A for details.
7	SHOPCITY	Shop Location	City name of facility performing the	(●) Alpha-numeric, 30 characters max
8	SHOPSTATE	Shop Location (State)	State or Province of facility performing the inspection	(●) Alpha-Numeric, 30 characters max; Select entry for this field from a drop-down list.
9	BUILTDATE	Built Date	Car built date, as per UMLER	(●) Numeric, 8 digits in YYYYMMDD format. Select entry for this field with calendar icon.
10	INSPDATE	Inspection Date	The date the Inspection occurred	(●) Numeric, 8 digits in YYYYMMDD format. Select entry for this field with calendar icon.
11	ISJACKET	Car Jacketed	Is the Car Jacketed? Yes = 1 No = 0	(●) Numeric, 1 digit (0 or 1). Select Yes or No for this field from a drop-down list.

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	Batch Field Name	Interface Field Name	Description	Data Rules
12	RESERVE1	Reserved 1 (design specific)	Open field for text entry	Alpha-Numeric, 30 characters max. This field is for data a car owner or builder may have, specific for this design.
13	RESERVE2	Reserved 2 (design specific)	Open field for text entry	Alpha-Numeric, 30 characters max. This field is for data a car owner or builder may have, specific for this design.
14	RESERVE3		Open field for text entry	Alpha-Numeric, 10 characters max. This field is for data a car owner or builder may have, specific for this design.
15	RESERVE4		Open field for text entry	Alpha-Numeric, 10 characters max. This field is for data a car owner or builder may have, specific for this design.
16	RESERVE5		Open field for text entry	Alpha-Numeric, 10 characters max. This field is for data a car owner or builder may have, specific for this design.
17	RESERVE6		Open field for text entry	Alpha-Numeric, 10 characters max. This field is for data a car owner or builder may have, specific for this design.
18	RESERVE7		Open field for text entry	Alpha-Numeric, 10 characters max. This field is for data a car owner or builder may have, specific for this design.
19	RESERVE8		Open field for text entry	Alpha-Numeric, 10 characters max. This field is for data a car owner or builder may have, specific for this design.
20	RESERVE9		Open field for text entry	Alpha-Numeric, 50 characters max. This field is for data a car owner or builder may have, specific for this design.
21	RESERVE10		Open field for text entry	Alpha-Numeric, 50 characters max. This field is for data a car owner or builder may have, specific for this design.
22	ORIGCERT	Original AAR Cert of Construction No.	Original AAR Certificate of Construction number	(●) Alpha-Numeric, 8 characters max
23	BUILDER	Builder	Builder Code, as per UMLER	(●) Alpha-Numeric, 4 characters max; Select entry for this field from a drop-down list. See App B for details.
24	STUBSILLDESIGN	Stub Sill Design (as inspected)	Current Stub Sill Design, as per UMLER	(●) Alpha-Numeric, 7 characters max. Select entry for this field from a drop-down list. Use similar design if the correct sill design is not available. See App D for details.
25	STUBSILLDESIGNVARIATION	Stub Sill Design Variation	Type of inboard sill reinforcement: Continuous or Non-Continuous or N/A	(●) Alpha-Numeric, 8 characters max. Valid entries: <ul style="list-style-type: none"> • Continuous • Non-Continuous • N/A Select entry for this field from a drop-down list. Valid choice depends on boxes checked for Inspection Type/Reason. <ul style="list-style-type: none"> • Tank Qualification is checked: select Continuous or Non-continuous • Tank Qualification is not checked: select N/A

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	Batch Field Name	Interface Field Name	Description	Data Rules
26	MILES	Miles (actual cumulative miles in thousands of miles)	Number of car miles in thousands. (e.g., enter 23 for 23,000 miles)	Numeric, 4 digit max of 0-1000 (0 to 1,000,000 miles). Any entry larger than 1000 produces an error message. This field is required for the application, and optional for the batch upload.
27	CONSTRCARSPEC	Constructed Car Spec.	Constructed car specification	(●) Alpha-Numeric, 11 characters max; Select entry for this field from a drop-down list. See App Q for details.
28	POSTR1CARSPEC	Car Spec. After Modification	Car specification after modification	(●) Alpha-Numeric, 11 characters max; Select entry for this field from a drop-down list. See App R for details.
29	DAMAGETYPE	Nature of Damage	Cause of damage, accident or non-accident or N/A	(●) Alpha-Numeric, 12 characters max. Valid entries: <ul style="list-style-type: none"> • Accident • Non-Accident • N/A Select entry for this field from a drop-down list.
30	RAILRESP	Railroad Responsibility	Is Railroad Responsible? Yes = 1 – when any part of the cost is attributable to the railroad No = 0	(●) Numeric, 1 digit (0 or 1). Select Yes or No from a drop-down list.
31	STUBSILLDEFA	Stub Sill Deformation (A End)	Is Stub Sill Deformation at A-End? Yes = 1 No = 0	Numeric, 1 digit (0 or 1). Check none, one, or both options.
32	STUBSILLDEFB	Stub Sill Deformation (B End)	Is Stub Sill Deformation at B-End? Yes = 1 No = 0	Numeric, 1 digit (0 or 1). Check none, one, or both options.
33	LASTTANKQUALYEAR	Year of Last Tank Qualification	Year of last tank qualification	(●) Numeric, 4 digits in YYYY format. Select year from a drop-down list. If no last tank qualification, enter built date of car.
34	TANKFAIL	Tank Containment Failure	Failure to contain commodity? Yes = 1 No = 0	Numeric, 1 digit (0 or 1). Select yes or no from the drop-down list.
35	NUMCOMPARTMENTS	No. of Compartments	Number of compartments in the car	(●) Numeric, 1 digit (value from 1-6). This value impacts values for these fields: <ul style="list-style-type: none"> • Compartment No. • Compartment No. (Weld) • Compartment No. (Shell)
36	MANAGEMENTREP	Facility Rep Name	Name of Management Representative, typically the name of the person submitting the inspection	(●) Alpha-Numeric, 30 characters max
37	SUBMITTEDBY	Submitted By	The name and company submitting the inspection	(●) Alpha-Numeric, 30 characters max

Batch and Inspection Form Part 2

Alterations and Conversions				
38	COMPARTMENT_NO_CHANGE	Compartment No.	Compartment number associated with the change to the car	(●) Numeric, 1 digit (value from 1-6 dependent on the No. of Compartments)
39	CHANGE_CATEGORY	Change Category	Type of drawing used to support the R1 alteration/conversion	Alpha-Numeric, 20 characters max. See App E for details.
40	DRAWING_NUMBER	Drawing Number	New drawing, part, document or commodity ID used to support the R1 alteration/conversion	Alpha-Numeric, 50 characters max. If the change category is set to Commodity, the text in this field should include either "Owner" or "AAR TCC".
41	APPROVAL_REFERENCE	AAR Approval Reference No.	Number of the AAR approval that supports the alteration/conversion	Alpha-Numeric, 10 characters max. If the change category is set to Commodity, the text in this field should include either "Owner" or "AAR TCC".
42	DRAWING_COMMENTS	Drawing Comments	Drawing comments field, free form text box	Alpha-Numeric, 250 characters max.
Weld Inspection Results				
43	INSPECTION_RESULTS	Inspection Results	Indicates whether or not defects were found	Alpha-Numeric, 250 characters max. <ul style="list-style-type: none"> Defect(s) Found No Exceptions Found Use 'No exceptions found' if all reportable welds have been inspected and no exceptions were found. Select from a drop-down list.
44	COMPARTMENT_NO_WELD	Compartment No. (Weld)	Component number associated with the weld inspection	(●) Numeric, 1 digit (value from 1-6 dependent on the No. of Compartments)
45	WELD_CODE	Weld Code	Identifies the weld that is defective	Alpha-Numeric, 19 characters max. See App K for details.
46	LOCATION	Weld Location	Identifies the location on the car of the weld defect	Alpha-Numeric, 26 characters max. See App L for details.
47	INSPECTION_TECHNIQUE	Inspection Technique	Technique used to identify the weld defect	Alpha-Numeric, 26 characters max. See App M for details.
48	NUM_CRACKS	No. of Cracks	Number of Cracks	Numeric, 5 digits max; >=0
49	MAX_CRACK_LENGTH	Max Crack Length (in.)	Length, measured to the hundredth of an inch, of the longest crack found during inspection	Numeric, 6 digits max; precision: 0.00

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50	CRACK_ORIENTATION_CODE	Crack Orientation Code 1	Orientation of the crack in the weld or parent metal. Detail about the weld.	Alpha-Numeric, 19 characters max. See App N for details.
51	CRACK_ORIENTATION_CODE	Crack Orientation Code 2	Additional field for orientation of the crack in the weld or parent metal. Detail about the weld.	Alpha-Numeric, 19 characters max. See App N for details.
52	CRACK_ORIENTATION_CODE	Crack Orientation Code 3	Additional field for orientation of the crack in the weld or parent metal. Detail about the weld.	Alpha-Numeric, 19 characters max. See App N for details.
53	HOW_REPAIRED_WELD	How Repaired (Weld)	Designation of the repair method (AAR Appendix R M-1002)	Alpha-Numeric, 42 characters max. See App O for details.
Shell/Sill Inspection Results				
54	COMPONENT	Failed Component	Tank component containing the damage	Alpha-Numeric, 46 characters max. See App F for details.
55	COMPONENT_NO_SHELL	Compartment No. (Shell)	Compartment number associated with the shell inspection	(●) Numeric, 1 digit (value from 1-6 dependent on the No. of Compartments)
56	FAILURE_TY	Failure Type	Type of tank damage	Alpha-Numeric, 32 characters max. See App G for details.
57	FAILURE_CAUSE	Failure Cause	Condition that caused the tank damage	Alpha-Numeric, 29 characters max. See App H for details.
58	HOW_REPAIRED_SHELL	How Repaired (Shell)	The rule/procedure used to repair the tank damage (AAR Appendix R M-1002)	Alpha-Numeric, 62 characters max. See App I for details.
59	CRACK_LENGTH	Crack Length (in.)	Length, measured to the hundredth of an inch, of the longest crack found during inspection	Numeric, 7 digits max; precision: 0.00
60	REPAIR_LOCATION	Repair Location	Location on car of the repair.	Alpha-Numeric, 25 characters max. See App J for details.
61	INSPECTION_METHOD	Inspection Method	Technique used to inspect the tank damage	Alpha-Numeric, 26 characters max. See App M for details.

Appendices

Rules for all Appendices are located in the [Data Dependencies Matrix](#), available on Railinc.com.

- Appendix A – Stencil Classes
- Appendix B – Builders
- Appendix C – Car Marks
- Appendix D – Stub Sill Designs
- Appendix E – Change Categories
- Appendix F – Components
- Appendix G – Failure Types
- Appendix H – Failure Causes
- Appendix I – How Repair Shell
- Appendix J – Repair Locations
- Appendix K – Weld Codes
- Appendix L – Weld Locations
- Appendix M – Inspection Techniques
- Appendix N – Crack Orientation Codes
- Appendix O – How Repair Welds
- Appendix P – Station Stencil Shop Codes
- Appendix Q – Constructed Car Spec.
- Appendix R – Car Spec. After Modification