

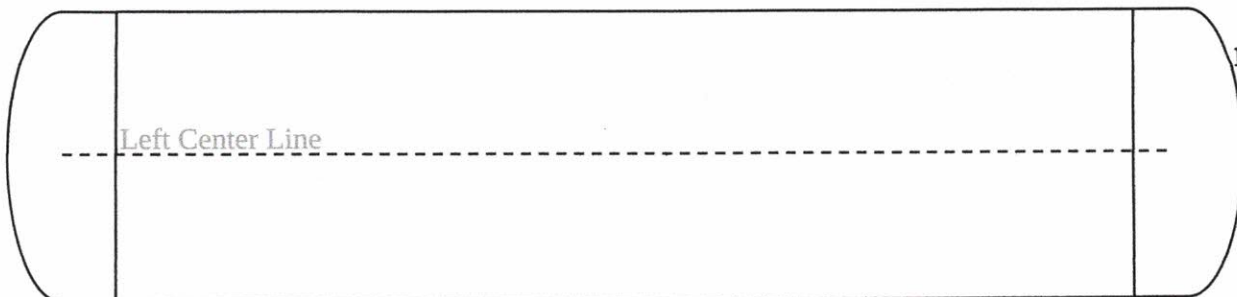
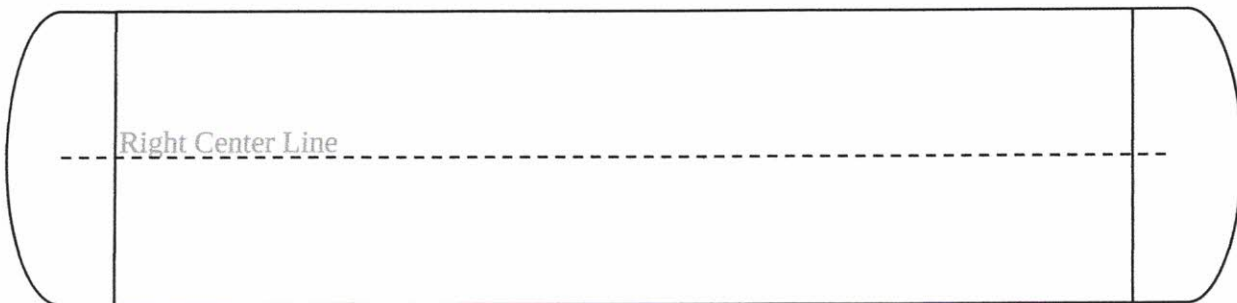
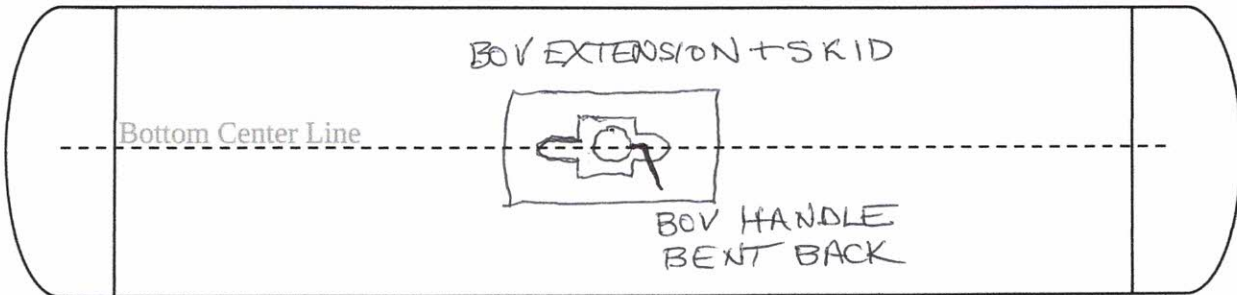
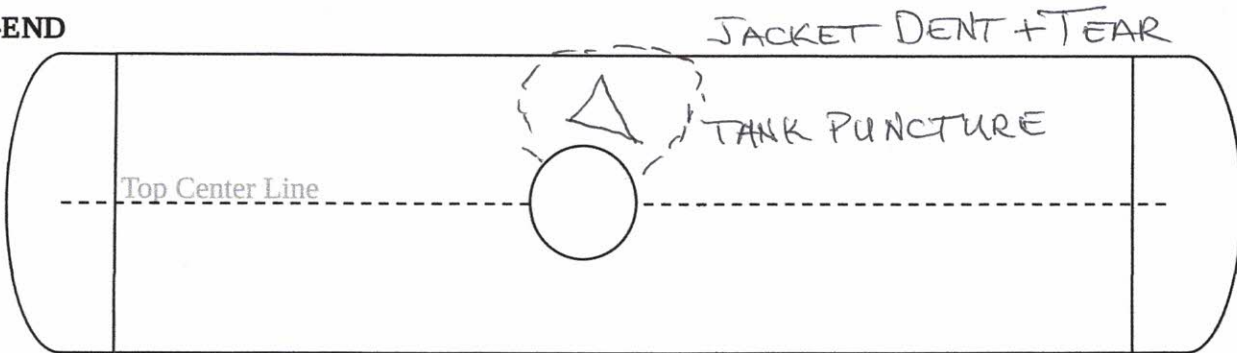


National Transportation Safety Board Tank Car Damage Assessment Form

Reporting Marks	WFRX 160411		Car Location City/State	RAYMOND, MN	
Date inspected	03-31-23	Railroad	BNSF	DOT Specification	117J100W
Last Contained	ETHANOL		Was product released?	YES	
(Indicate One)	Jacket	YES		Does car contain product	YES
Car builder	GBRX	Stub Sill Design		Built Date	
Capacity (GAL)	30,590		LD Limit (LB)		

Indicate number on figures below within damaged areas. (Sketched in by inspector)

B-END



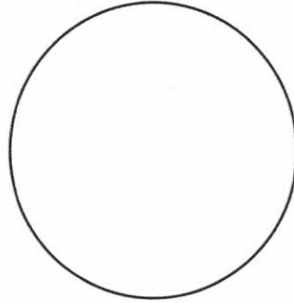
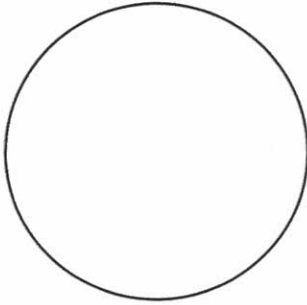
B-END



National Transportation Safety Board Tank Car Damage Assessment Form

B-Head

A-Head



	Station Stencil	Qual.	Due
Tank Qual.			
Thickness			
Serv. Equip.			
PRD			
Lining			
Rule 88			
Stub Sill			

Comments:

WFRX 160411

TANK OR JACKET DAMAGE

1. Document estimated location of damage on Figures located on page 1 of this report and document dimensions coinciding with number below. (photos should be numbered and attached to coincide with numbers below)

1.	Affected?	JACKET	Location?	MIDDLE	Dimensions:	Length	6'	Width	5'	Depth	18"
-	Defect type?	DENT	Shape?	OVAL							
2.	Affected?	JACKET	Location?	MIDDLE	Dimensions:	Length		Width		Depth	
-	Defect type?	TEAR	Shape?	SQUARE							
3.	Affected?	TANK	Location?	MIDDLE	Dimensions:	Length	18"	Width	18"	Depth	18"
-	Defect type?	PUNCTURE	Shape?	SQUARE							
4.	Affected?		Location?		Dimensions:	Length		Width		Depth	
-	Defect type?		Shape?								
5.	Affected?		Location?		Dimensions:	Length		Width		Depth	
-	Defect type?		Shape?								
6.	Affected?		Location?		Dimensions:	Length		Width		Depth	
-	Defect type?		Shape?								
7.	Affected?		Location?		Dimensions:	Length		Width		Depth	
-	Defect type?		Shape?								
8.	Affected?		Location?		Dimensions:	Length		Width		Depth	
-	Defect type?		Shape?								

2. Was this tank car exposed to fire?
3. How long was the car exposed to fire? UNKNOWN
4. What percentage/locations of the tank were exposed to fire? Indicate location in figures on page 1.
5. What material burned to create the fire that the car was exposed to? ETHANOL
6. To what degree did the car roll? Initially degrees and stopped at
7. Distance traveled from track center? B-end? _____ A-end? _____ Center? _____
8. Brief description of details of surfaces tank was exposed after derailment? E.g. mud, track, rocks, etc...

MUD, TRACK, BALLAST, OTHER RAILCARS



**National Transportation Safety Board
Tank Car Damage Assessment Form**

WFRX 160411

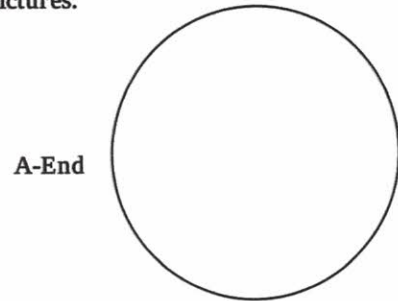
VALVE DAMAGE

Utilize Form TCAD-1.2 and supplement description as indicative of damage below:

1. Number of damaged valves? UNKNOWN ^{TOP} Document station stencil if other than qual. Decal _____

a	Type of damaged valve?		Manufacturer?	
-	Gasket Type?		O-ring type?	Serial Number
b	Type of damaged valve?		Manufacturer?	
-	Gasket Type?		O-ring type?	Serial Number
c	Type of damaged valve?		Manufacturer?	Cause?
-	Gasket Type?		O-ring type?	Serial Number
d	Type of damaged valve?		Manufacturer?	
-	Gasket Type?		O-ring type?	Serial Number
e	Type of damaged valve?		Manufacturer?	
	Gasket Type?		O-ring type?	Serial Number

Sketch in dome or dual housing arrangement information in relation to valve location in provided figure. Valve Lettering should coincide with lettering above, along with any attached pictures.



2. Description of damage? Valve, Coils etc... _____ ^{BOTTOM} Document station stencil if other than qual. Decal _____

a	Type of damaged valve?	<u>BOV EXT.</u>	Manufacturer?	
-	Gasket Type?	<u>UNKNOWN</u>	O-ring type?	Serial Number
b	Type of damaged valve?		Manufacturer?	
-	Gasket Type?		O-ring type?	Serial Number
c	Type of damaged valve?		Manufacturer?	
-	Gasket Type?		O-ring type?	Serial Number
d	Type of damaged valve?		Manufacturer?	
-	Gasket Type?		O-ring type?	Serial Number
e	Type of damaged valve?		Manufacturer?	
	Gasket Type?		O-ring type?	Serial Number

QTY. 1 - BOV EXTENSION NUTS LOOSE

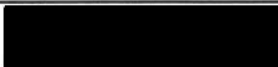


National Transportation Safety Board
Tank Car Damage Assessment Form

Other information or description deemed pertinent by inspector:

WFRX 160411

Inspector's Name





National Transportation Safety Board Tank Car Damage Assessment Form

Reporting Marks	WFRX 160405	Car Location City/State	RAYMOND, MN	
Date inspected	03-31-23	Railroad	BNSF	DOT Specification
Last Contained	ETHANOL		Was product released?	YES
(Indicate One)	Jacket	YES	Does car contain product	YES
Car builder	GBRX	Stub Sill Design		Built Date
Capacity (GAL)	30640	LD Limit (LB)		

Indicate number on figures below within damaged areas. (Sketched in by inspector)

B-END

Top Center Line

HEAD SHIELD TORN ALMOST COMPLETELY OFF

MANWAY GASKET MELTED ALMOST COMPLETELY

JACKET TEARS

HEAD SHIELD SEPARATED FROM JACKET 48"

Bottom Center Line

HEAD SHIELD ATTACHED TO JACKET = 16"

HEAD SHIELD TORN AWAY FROM JACKET

Right Center Line

Left Center Line

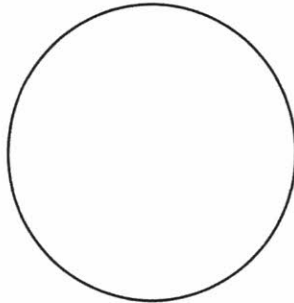
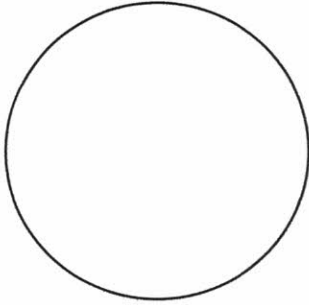
B-END



National Transportation Safety Board Tank Car Damage Assessment Form

B-Head

A-Head



	Station Stencil	Qual.	Due
Tank Qual.	GNGM	2019	2029
Thickness	GNGM	2019	2029
Serv. Equip.	GNGM	2019	2029
PRD	75 GNGM	2019	2029
Lining	N/A		
Rule 88	GNGM	2019	2029
Stub Sill	GNGM	2019	2029

Comments:

WFRX 160405
MANWAY GASKET PARTIALLY MELTED

TANK OR JACKET DAMAGE

1. Document estimated location of damage on Figures located on page 1 of this report and document dimensions coinciding with number below. (photos should be numbered and attached to coincide with numbers below)

1.	Affected?	JACKET	Location?	AL	Dimensions:	Length	20'	Width	3'	Depth	2'
-	Defect type?	DENT	Shape?	FLAT							
2.	Affected?	HD. SHIELD	Location?	B	Dimensions:	Length	33'	Width	48"	Depth	
-	Defect type?	TEAR	Shape?	SPLIT	HEAD SHIELD TORN ALMOST COMPLETELY OFF						
3.	Affected?	HD. SHIELD	Location?	AR	Dimensions:	Length	18"	Width	1"	Depth	
-	Defect type?	TEAR	Shape?	SPLIT							
4.	Affected?		Location?		Dimensions:	Length		Width		Depth	
-	Defect type?		Shape?								
5.	Affected?		Location?		Dimensions:	Length		Width		Depth	
-	Defect type?		Shape?								
6.	Affected?		Location?		Dimensions:	Length		Width		Depth	
-	Defect type?		Shape?								
7.	Affected?		Location?		Dimensions:	Length		Width		Depth	
-	Defect type?		Shape?								
8.	Affected?		Location?		Dimensions:	Length		Width		Depth	
-	Defect type?		Shape?								

2. Was this tank car exposed to fire?
3. How long was the car exposed to fire? UNKNOWN
4. What percentage/locations of the tank were exposed to fire? 60% Indicate location in figures on page 1.
5. What material burned to create the fire that the car was exposed to? ETHANOL
6. To what degree did the car roll? Initially degrees and stopped at
7. Distance traveled from track center? B-end? A-end? Center?
8. Brief description of details of surfaces tank was exposed after derailment? E.g. mud, track, rocks, etc...

MUD, BALLAST, TRACK, OTHER RAILCARS



**National Transportation Safety Board
Tank Car Damage Assessment Form**

WFRX 160405

VALVE DAMAGE

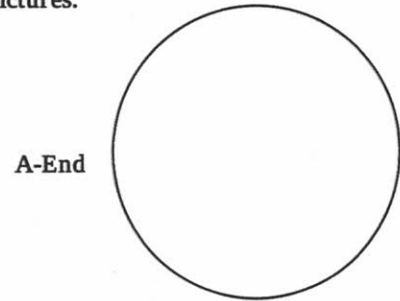
Utilize Form TCAD-1.2 and supplement description as indicative of damage below:

TOP

1. Number of damaged valves? NONE Document station stencil if other than qual. Decal _____

a	Type of damaged valve?		Manufacturer?	
-	Gasket Type?		O-ring type?	Serial Number
b	Type of damaged valve?		Manufacturer?	
-	Gasket Type?		O-ring type?	Serial Number
c	Type of damaged valve?		Manufacturer?	Cause?
-	Gasket Type?		O-ring type?	Serial Number
d	Type of damaged valve?		Manufacturer?	
-	Gasket Type?		O-ring type?	Serial Number
e	Type of damaged valve?		Manufacturer?	
-	Gasket Type?		O-ring type?	Serial Number

Sketch in dome or dual housing arrangement information in relation to valve location in provided figure. Valve Lettering should coincide with lettering above, along with any attached pictures.



BOTTOM

2. Description of damage? Valve, Coils etc... _____ Document station stencil if other than qual. Decal _____

a	Type of damaged valve?		Manufacturer?	
-	Gasket Type?		O-ring type?	Serial Number
b	Type of damaged valve?		Manufacturer?	
-	Gasket Type?		O-ring type?	Serial Number
c	Type of damaged valve?		Manufacturer?	
-	Gasket Type?		O-ring type?	Serial Number
d	Type of damaged valve?		Manufacturer?	
-	Gasket Type?		O-ring type?	Serial Number
e	Type of damaged valve?		Manufacturer?	
-	Gasket Type?		O-ring type?	Serial Number



National Transportation Safety Board
Tank Car Damage Assessment Form

Other information or description deemed pertinent by inspector:

WFRX 160405

Inspector's Name



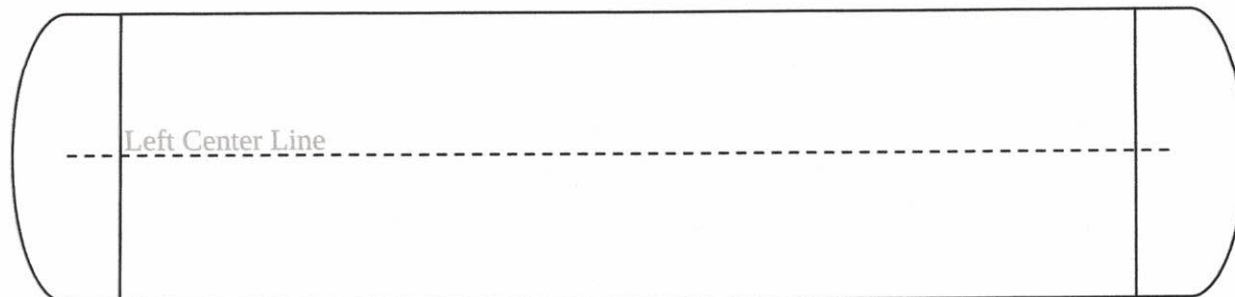
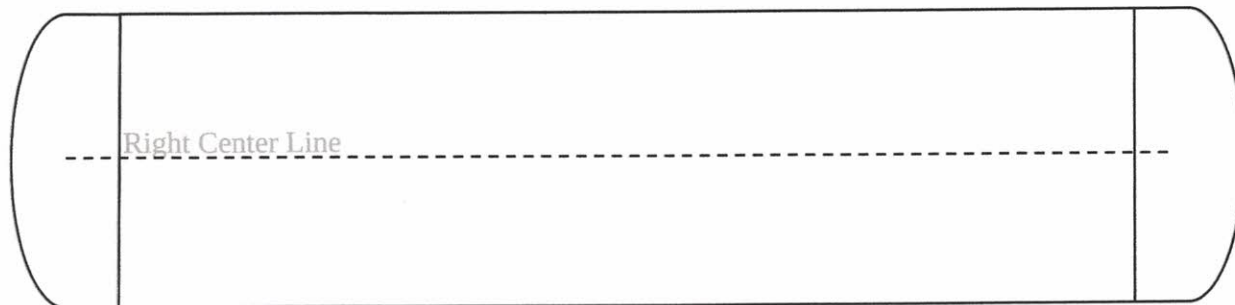
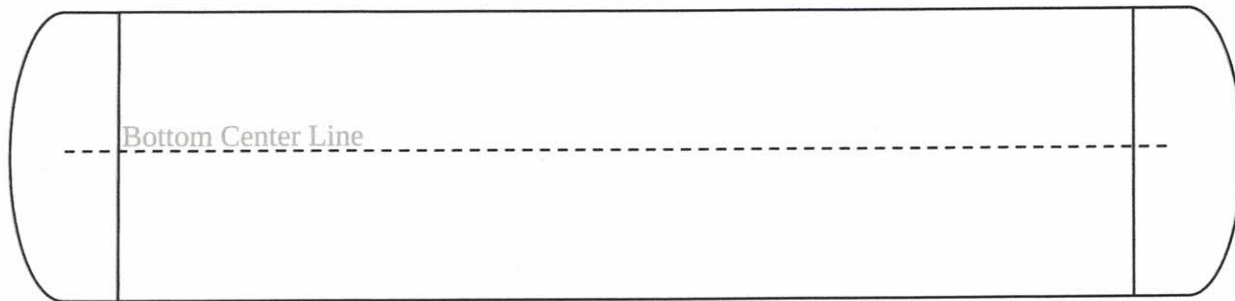
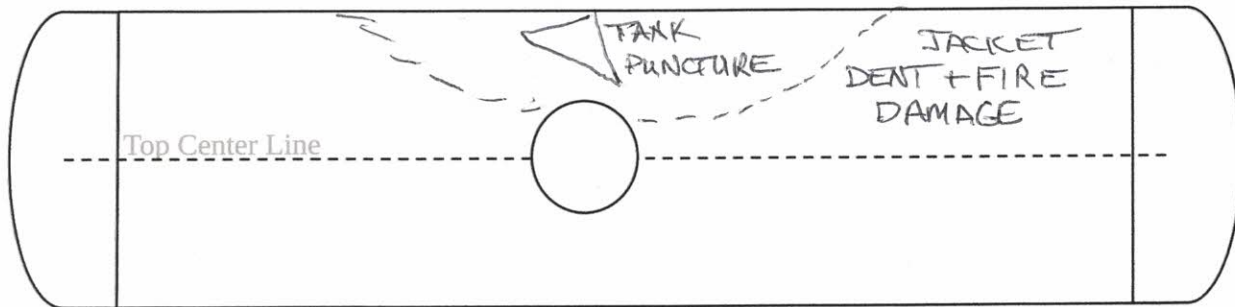


National Transportation Safety Board Tank Car Damage Assessment Form

Reporting Marks	TILX 363092		Car Location City/State	RAYMOND MN	
Date inspected	3-31-23	Railroad	BNSF	DOT Specification	117J100W
Last Contained	ETHANOL		Was product released?	YES	
(Indicate One)	Jacket YES		Does car contain product	YES	
Car builder	TRINITY	Stub Sill Design		Built Date	
Capacity (GAL)	30,300		LD Limit (LB)		

Indicate number on figures below within damaged areas. (Sketched in by inspector)

B-END



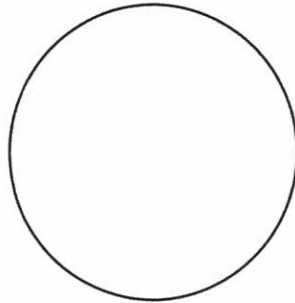
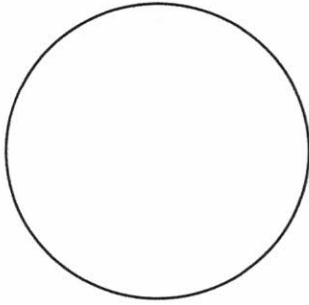
B-END



National Transportation Safety Board Tank Car Damage Assessment Form

B-Head

A-Head



	Station Stencil	Qual.	Due
Tank Qual.			
Thickness			
Serv. Equip.			
PRD			
Lining			
Rule 88			
Stub Sill			

Comments:

TILX 363092 - QUALIFICATION DECALS BURNED OFF
MANWAY GASKET BURNED

TANK OR JACKET DAMAGE

1. Document estimated location of damage on Figures located on page 1 of this report and document dimensions coinciding with number below. (photos should be numbered and attached to coincide with numbers below)

1.	Affected?	JACKET	Location?	BL MID	Dimensions:	Length	120"	Width	60"	Depth	36"
-	Defect type?	DENT	Shape?	OVAL							
2.	Affected?	JACKET	Location?	BL MID	Dimensions:	Length	30"	Width	48"	Depth	36"
-	Defect type?	TEAR	Shape?	OVAL							
3.	Affected?	TANK	Location?	BL MID	Dimensions:	Length	30"	Width	48"	Depth	36"
-	Defect type?	PUNCTURE	Shape?	PIE							
4.	Affected?	JACKET	Location?	AL END	Dimensions:	Length	24"	Width	60"	Depth	3"
-	Defect type?	DENT	Shape?								
5.	Affected?		Location?		Dimensions:	Length		Width		Depth	
-	Defect type?		Shape?								
6.	Affected?		Location?		Dimensions:	Length		Width		Depth	
-	Defect type?		Shape?								
7.	Affected?		Location?		Dimensions:	Length		Width		Depth	
-	Defect type?		Shape?								
8.	Affected?		Location?		Dimensions:	Length		Width		Depth	
-	Defect type?		Shape?								

2. Was this tank car exposed to fire?
3. How long was the car exposed to fire? UNKNOWN
4. What percentage/locations of the tank were exposed to fire? 8% Indicate location in figures on page 1.
5. What material burned to create the fire that the car was exposed to? ETHANOL
6. To what degree did the car roll? Initially degrees and stopped at
7. Distance traveled from track center? B-end? _____ A-end? _____ Center? _____
8. Brief description of details of surfaces tank was exposed after derailment? E.g. mud, track, rocks, etc...

MUD, TRACK, BALLAST, OTHER CARS



National Transportation Safety Board
Tank Car Damage Assessment Form

TILX 363092

VALVE DAMAGE

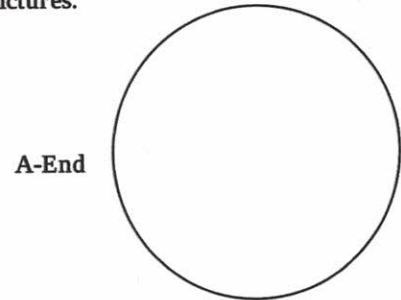
Utilize Form TCAD-1.2 and supplement description as indicative of damage below:

TOP

1. Number of damaged valves? NONE Document station stencil if other than qual. Decal _____

a	Type of damaged valve?		Manufacturer?	
-	Gasket Type?		O-ring type?	Serial Number
b	Type of damaged valve?		Manufacturer?	
-	Gasket Type?		O-ring type?	Serial Number
c	Type of damaged valve?		Manufacturer?	Cause?
-	Gasket Type?		O-ring type?	Serial Number
d	Type of damaged valve?		Manufacturer?	
-	Gasket Type?		O-ring type?	Serial Number
e	Type of damaged valve?		Manufacturer?	
-	Gasket Type?		O-ring type?	Serial Number

Sketch in dome or dual housing arrangement information in relation to valve location in provided figure. Valve Lettering should coincide with lettering above, along with any attached pictures.



BOTTOM

2. Description of damage? Valve, Coils etc... _____ Document station stencil if other than qual. Decal _____

a	Type of damaged valve?	<u>BOV EXT.</u>	Manufacturer?	
-	Gasket Type?		O-ring type?	Serial Number
b	Type of damaged valve?		Manufacturer?	
-	Gasket Type?		O-ring type?	Serial Number
c	Type of damaged valve?		Manufacturer?	
-	Gasket Type?		O-ring type?	Serial Number
d	Type of damaged valve?		Manufacturer?	
-	Gasket Type?		O-ring type?	Serial Number
e	Type of damaged valve?		Manufacturer?	
-	Gasket Type?		O-ring type?	Serial Number

QTY. 1 - M/W EYEBOLT LOOSE
QTY. 2 - BOV EXTENSION BOLTS LOOSE



National Transportation Safety Board
Tank Car Damage Assessment Form

Other information or description deemed pertinent by inspector:

TILX 363092

Inspector's Name



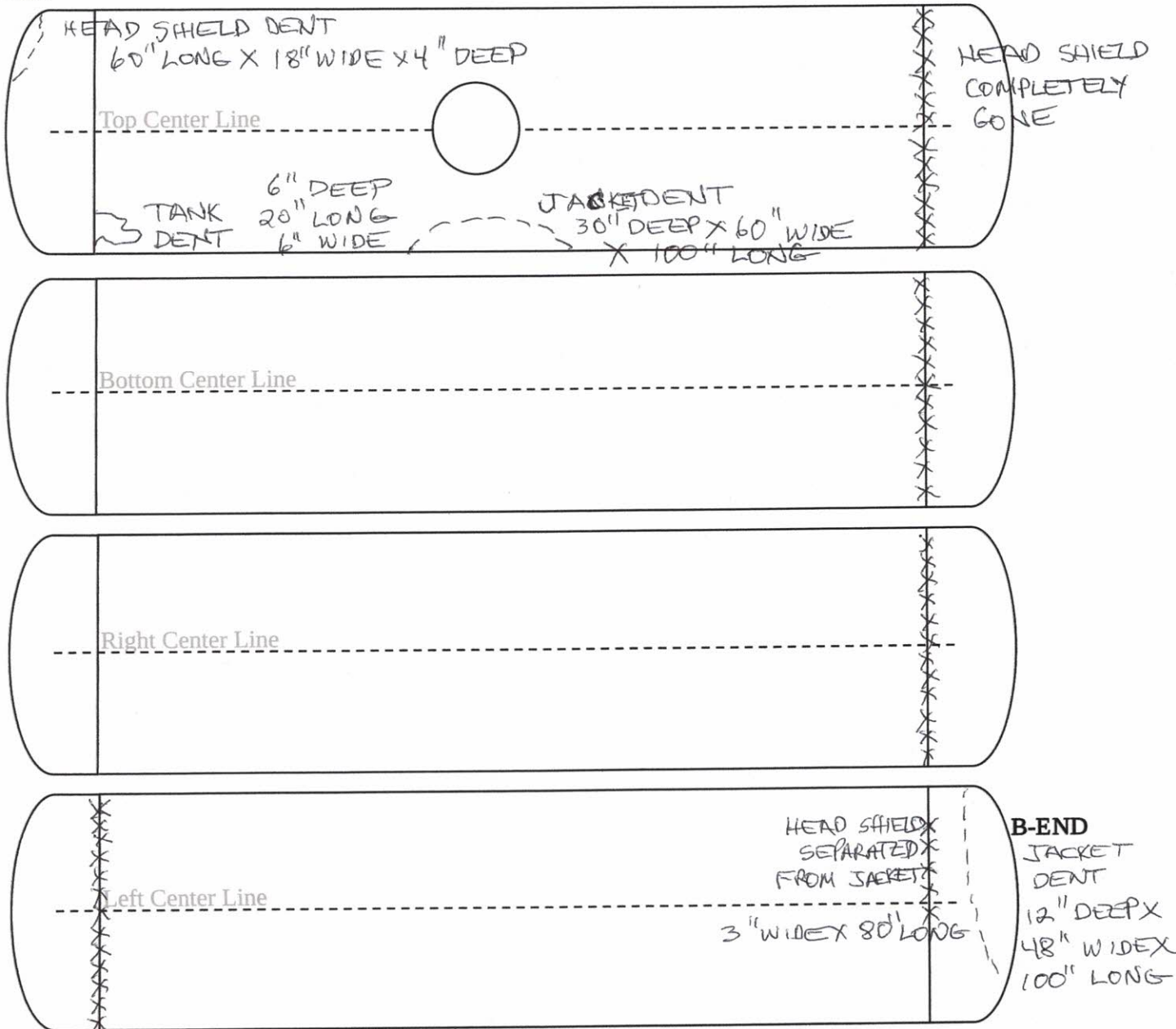


National Transportation Safety Board Tank Car Damage Assessment Form

Reporting Marks	WFRX 160417		Car Location City/State	RAYMOND, MN	
Date inspected	03-31-23	Railroad	BNSF	DOT Specification	117 J 100W
Last Contained	ETHANOL		Was product released?	YES	
(Indicate One)	Jacket YES		Does car contain product	YES	
Car builder	GBRX	Stub Sill Design		Built Date	
Capacity (GAL)	30,560		LD Limit (LB)	193,800	

Indicate number on figures below within damaged areas. (Sketched in by inspector)

B-END

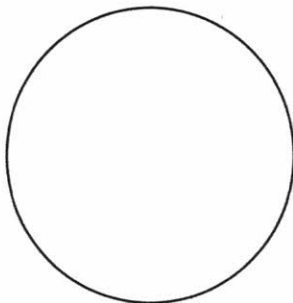
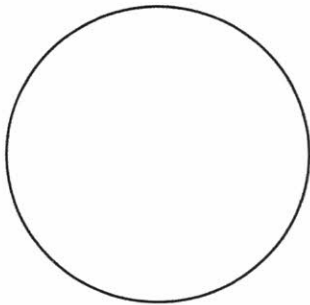




National Transportation Safety Board Tank Car Damage Assessment Form

B-Head

A-Head



	Station Stencil	Qual.	Due
Tank Qual.			
Thickness			
Serv. Equip.			
PRD			
Lining			
Rule 88			
Stub Sill			

Comments:

WFRX 160417
MANWAY GASKET PARTIALLY MELTED

TANK OR JACKET DAMAGE

1. Document estimated location of damage on Figures located on page 1 of this report and document dimensions coinciding with number below. (photos should be numbered and attached to coincide with numbers below)

1.	Affected?	H.D. SHIELD	Location?	BL	Dimensions:	Length	60"	Width	18"	Depth	4"
-	Defect type?	DENT	Shape?	FLAT							
2.	Affected?	H.D. SHIELD	Location?	BL	Dimensions:	Length	80"	Width	3"	Depth	
-	Defect type?	CRACK	Shape?	LINEAR	HEAD SHIELD SEPARATED FROM JACKET						
3.	Affected?	JACKET	Location?	RL	Dimensions:	Length	100"	Width	48"	Depth	12"
-	Defect type?	DENT	Shape?	OVAL							
4.	Affected?	JACKET	Location?	BR	Dimensions:	Length	100"	Width	60"	Depth	30"
-	Defect type?	DENT	Shape?	OVAL							
5.	Affected?	JACKET	Location?	BR	Dimensions:	Length		Width		Depth	
-	Defect type?	TEARS	Shape?	CUTS	VARIOUS						
6.	Affected?	JACKET	Location?	A	Dimensions:	Length		Width		Depth	
-	Defect type?	PEELED	Shape?	SCALD	ENTIRE JACKET END PEELED BACK						
7.	Affected?	H.D. SHIELD	Location?	A	Dimensions:	Length		Width		Depth	
-	Defect type?	MISSING	Shape?	N/A	A-END HEAD SHIELD MISSING						
8.	Affected?	TANK	Location?	BR	Dimensions:	Length	20"	Width	6"	Depth	6"
-	Defect type?	DENT	Shape?	OVAL							

2. Was this tank car exposed to fire?
3. How long was the car exposed to fire? UNKNOWN
4. What percentage/locations of the tank were exposed to fire? 30% Indicate location in figures on page 1.
5. What material burned to create the fire that the car was exposed to? ETHANOL
6. To what degree did the car roll? Initially degrees and stopped at
7. Distance traveled from track center? B-end? _____ A-end? _____ Center? _____
8. Brief description of details of surfaces tank was exposed after derailment? E.g. mud, track, rocks, etc...

MUD, BALLAST, OTHER RAIL CARS



**National Transportation Safety Board
Tank Car Damage Assessment Form**

VALVE DAMAGE

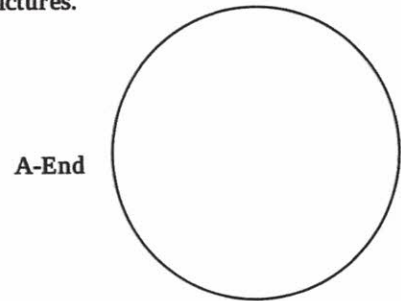
Utilize Form TCAD-1.2 and supplement description as indicative of damage below:

TOP

1. Number of damaged valves? _____ Document station stencil if other than qual. Decal _____

a	Type of damaged valve?		Manufacturer?			
-	Gasket Type?		O-ring type?		Serial Number	
b	Type of damaged valve?		Manufacturer?			
-	Gasket Type?		O-ring type?		Serial Number	
c	Type of damaged valve?		Manufacturer?		Cause?	
-	Gasket Type?		O-ring type?		Serial Number	
d	Type of damaged valve?		Manufacturer?			
-	Gasket Type?		O-ring type?		Serial Number	
e	Type of damaged valve?		Manufacturer?			
	Gasket Type?		O-ring type?		Serial Number	

Sketch in dome or dual housing arrangement information in relation to valve location in provided figure. Valve Lettering should coincide with lettering above, along with any attached pictures.



BOTTOM

2. Description of damage? Valve, Coils etc... _____ Document station stencil if other than qual. Decal _____

a	Type of damaged valve?		Manufacturer?			
-	Gasket Type?		O-ring type?		Serial Number	
b	Type of damaged valve?		Manufacturer?			
-	Gasket Type?		O-ring type?		Serial Number	
c	Type of damaged valve?		Manufacturer?			
-	Gasket Type?		O-ring type?		Serial Number	
d	Type of damaged valve?		Manufacturer?			
-	Gasket Type?		O-ring type?		Serial Number	
e	Type of damaged valve?		Manufacturer?			
	Gasket Type?		O-ring type?		Serial Number	



**National Transportation Safety Board
Tank Car Damage Assessment Form**

Other information or description deemed pertinent by inspector:

Inspector's Name _____



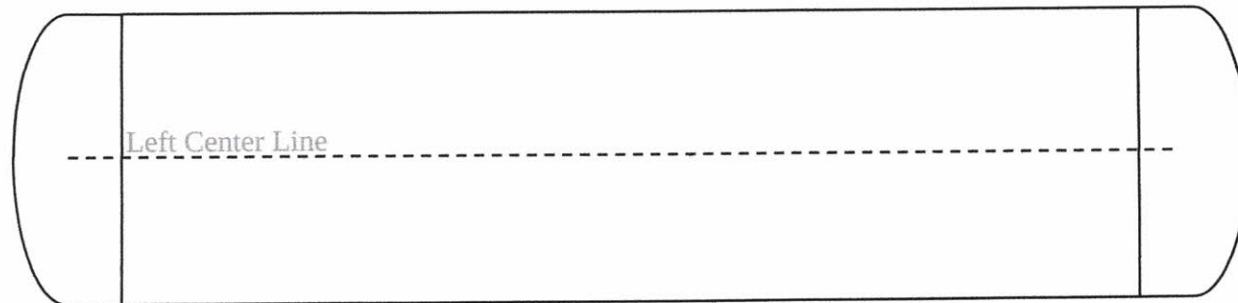
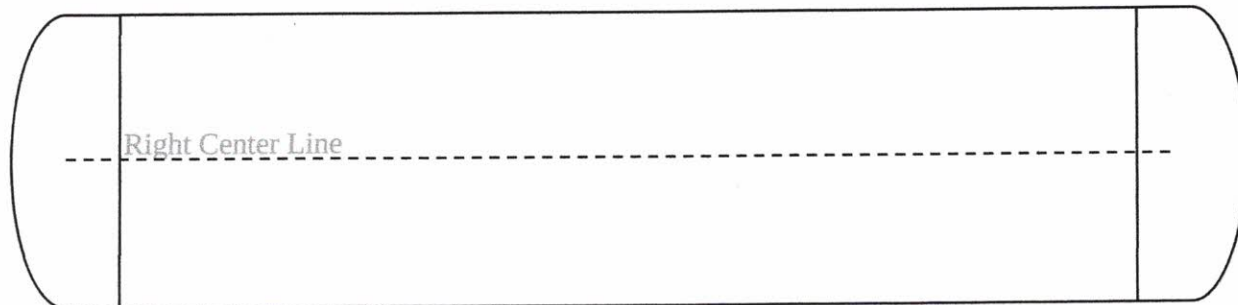
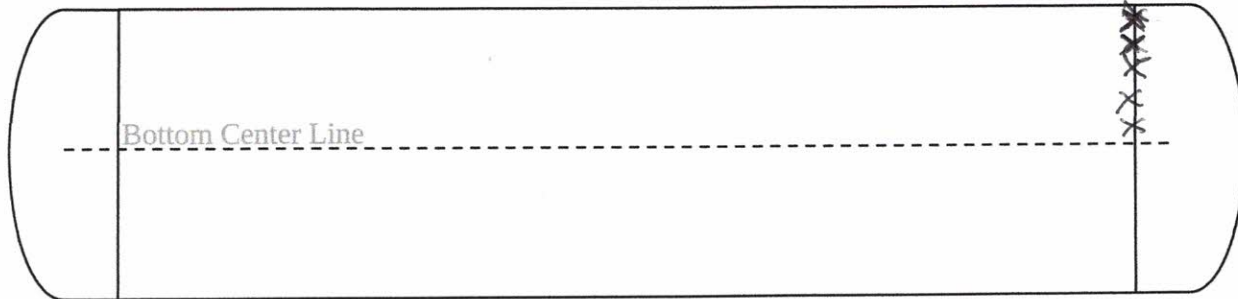
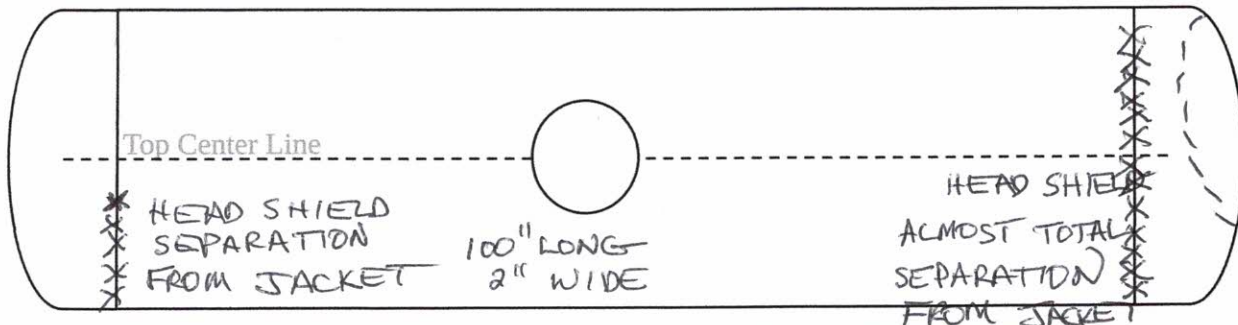
National Transportation Safety Board Tank Car Damage Assessment Form

Reporting Marks	TILX 192381		Car Location City/State	RAYMOND, MN	
Date inspected	03-31-23	Railroad	BNSF	DOT Specification	117 J100 W
Last Contained	ETHANOL		Was product released?	YES	
(Indicate One)	Jacket	YES	Does car contain product	YES	
Car builder	TRINITY	Stub Sill Design		Built Date	
Capacity (GAL)	30,310		LD Limit (LB)		

Indicate number on figures below within damaged areas. (Sketched in by inspector)

B-END

HEAD SHIELD
DENT
82" LONG
54" WIDE
24" DEEP



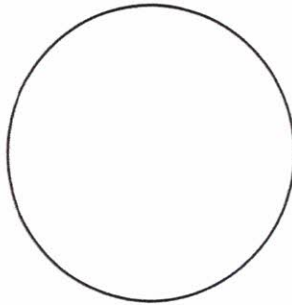
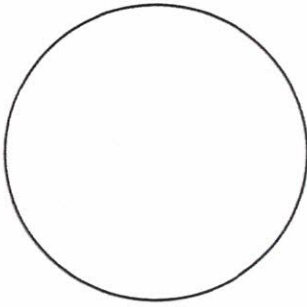
B-END



National Transportation Safety Board Tank Car Damage Assessment Form

B-Head

A-Head



	Station Stencil	Qual.	Due
Tank Qual.	TMMX	2021	2031
Thickness	TMMX	2021	2031
Serv. Equip.	TMMX	2021	2031
PRD	75	TMMX	2021
Lining	N/A		
Rule 88	TMMX	2021	2031
Stub Sill	TMMX	2021	2031

Comments:

TTLX 192381

TANK OR JACKET DAMAGE

1. Document estimated location of damage on Figures located on page 1 of this report and document dimensions coinciding with number below. (photos should be numbered and attached to coincide with numbers below)

1.	Affected?	HD. SHIELD	Location?	BR	Dimensions:	Length	100"	Width	2"	Depth	
-	Defect type?	SEPARATION	Shape?	LINEAR							
2.	Affected?	HD. SHIELD	Location?	AR	Dimensions:	Length	250"	Width	48"	Depth	
-	Defect type?	SEPARATE	Shape?	SPLIT							
3.	Affected?	HD. SHIELD	Location?	AL	Dimensions:	Length	82"	Width	54"	Depth	24"
-	Defect type?	DENT	Shape?	OVAL							
4.	Affected?		Location?		Dimensions:	Length		Width		Depth	
-	Defect type?		Shape?								
5.	Affected?		Location?		Dimensions:	Length		Width		Depth	
-	Defect type?		Shape?								
6.	Affected?		Location?		Dimensions:	Length		Width		Depth	
-	Defect type?		Shape?								
7.	Affected?		Location?		Dimensions:	Length		Width		Depth	
-	Defect type?		Shape?								
8.	Affected?		Location?		Dimensions:	Length		Width		Depth	
-	Defect type?		Shape?								

2. Was this tank car exposed to fire?
3. How long was the car exposed to fire? UNKNOWN
4. What percentage/locations of the tank were exposed to fire? 80% Indicate location in figures on page 1.
5. What material burned to create the fire that the car was exposed to?
6. To what degree did the car roll? Initially degrees and stopped at
7. Distance traveled from track center? B-end? _____ A-end? _____ Center? _____
8. Brief description of details of surfaces tank was exposed after derailment? E.g. mud, track, rocks, etc...

MUD, TRACK, BALLAST, OTHER RAILCARS



National Transportation Safety Board
Tank Car Damage Assessment Form

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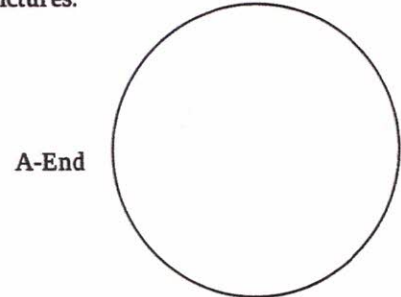
VALVE DAMAGE

Utilize Form TCAD-1.2 and supplement description as indicative of damage below:

1. Number of damaged valves? UNKNOWN ^{TOP} Document station stencil if other than qual. Decal _____

a	Type of damaged valve?		Manufacturer?	
-	Gasket Type?		O-ring type?	Serial Number
b	Type of damaged valve?		Manufacturer?	
-	Gasket Type?		O-ring type?	Serial Number
c	Type of damaged valve?		Manufacturer?	Cause?
-	Gasket Type?		O-ring type?	Serial Number
d	Type of damaged valve?		Manufacturer?	
-	Gasket Type?		O-ring type?	Serial Number
e	Type of damaged valve?		Manufacturer?	
	Gasket Type?		O-ring type?	Serial Number

Sketch in dome or dual housing arrangement information in relation to valve location in provided figure. Valve Lettering should coincide with lettering above, along with any attached pictures.



2. Description of damage? Valve, Coils etc... _____ ^{BOTTOM} Document station stencil if other than qual. Decal _____

a	Type of damaged valve?		Manufacturer?	
-	Gasket Type?		O-ring type?	Serial Number
b	Type of damaged valve?		Manufacturer?	
-	Gasket Type?		O-ring type?	Serial Number
c	Type of damaged valve?		Manufacturer?	
-	Gasket Type?		O-ring type?	Serial Number
d	Type of damaged valve?		Manufacturer?	
-	Gasket Type?		O-ring type?	Serial Number
e	Type of damaged valve?		Manufacturer?	
	Gasket Type?		O-ring type?	Serial Number



**National Transportation Safety Board
Tank Car Damage Assessment Form**

Other information or description deemed pertinent by inspector:

Inspector's Name

