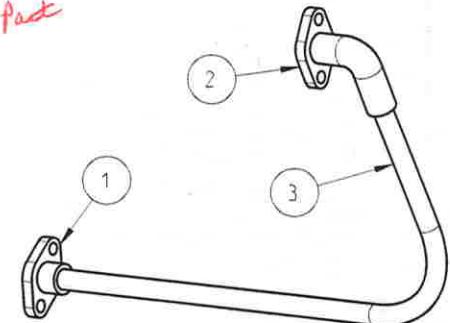
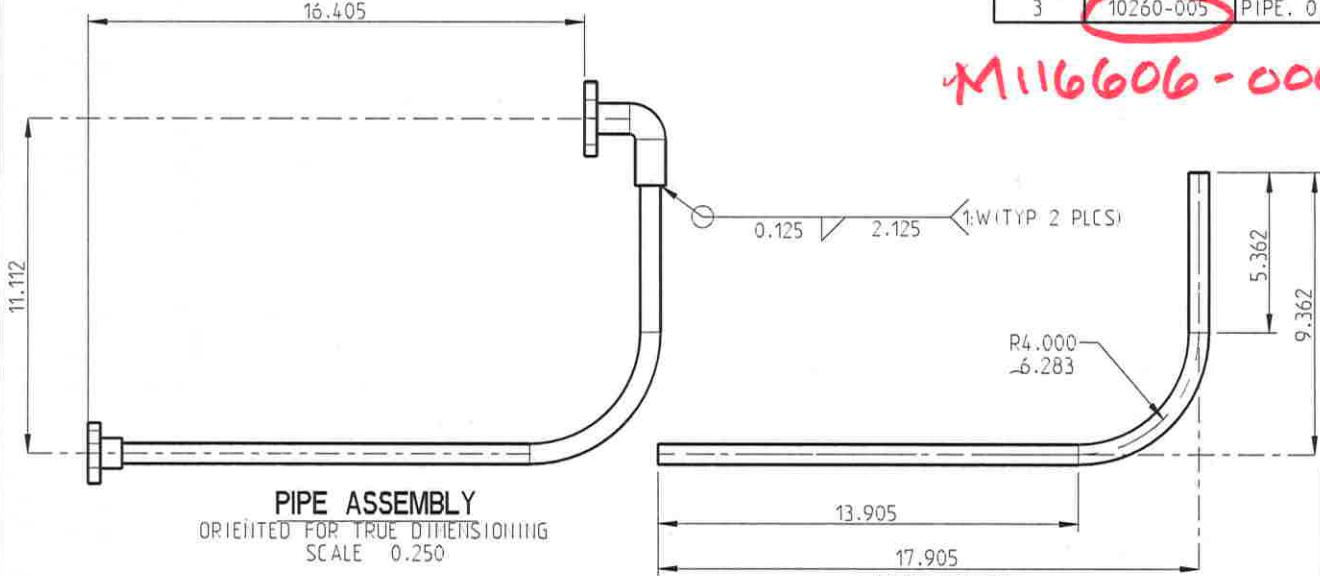


11/20/21  
Rev.  
done ✓

## BILL OF MATERIAL

Item No.	Part No.	Description	Quantity	Unit Length
1	✓10240-070	FITTING, 3/8" STRT SWV FLG SW, GG	1	
2	✓10240-072	FITTING, 3/8" SWV FLG 90 ELBOW SW, GG	1	
3	10260-005	PIPE, 0.375 Ø, EXTRA HEAVY	1	25.550

M116606 - 000 *Circled part*



Level	Date	Approved	Description
<b>REVISIONS</b>			

**FreightCar America**

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### Standard Tolerances (Unless Noted)

Decimal Dimensions $\pm 0.063$	Hole Diameters $\pm 0.031$
Diagonals 0.125 Max. Variation	Angles $\pm 1^\circ$
Radii will be thickness of material	Tolerances are not accumulative

Made By: MIHK Date: 12-12-12 Ref Dwg: -  
Approved: JW B/WB Do Not Scale Drawing Est. Wt: 2.60 lbs

### ASSEMBLY, E/L TO VOLUME RES PIPE

Size	Drawing / Part Number	Rev.
B	A108965-000	-

### NOTE:

1. UNLESS OTHERWISE NOTED, WELD LENGTHS SHOWN ARE MINIMUM LENGTHS. WELD TERMINATIONS MUST HAVE A MINIMUM EDGE DISTANCE OF 0.25.
2. ALL WELDING TO BE IN ACCORDANCE WITH RAILROAD WELDING SPECIFICATION AWS D15.1, LATEST REVISION, AND TO BE CLASS 2 UNLESS OTHERWISE SPECIFIED.
3. PIPE DIMENSIONS ARE FOR REFERENCE ONLY, MANUFACTURING TO DETERMINE FINAL ASSEMBLY DIMENSIONS.

Eco CAS600067

A✓

1/22/04  
Per.  
done

9	8	7	6	5	4	3	2	1																				
<b>BILL OF MATERIAL</b> <span style="color: red;">OK</span>																												
<table border="1"> <thead> <tr> <th>Item No.</th><th>Part No.</th><th>Description</th><th>Quantity</th><th>Unit Length</th></tr> </thead> <tbody> <tr> <td>1</td><td>✓10240-067</td><td>FITTING, 3/4" STRT SWV FLG SW, GG</td><td>1</td><td></td></tr> <tr> <td>2</td><td>✓10240-068</td><td>FITTING, 3/4" STRT SWV FLG SW</td><td>1</td><td></td></tr> <tr> <td>3</td><td>10260-004</td><td>PIPE, 0.750 Ø, EXTRA HEAVY</td><td>1</td><td>58.327</td></tr> </tbody> </table>									Item No.	Part No.	Description	Quantity	Unit Length	1	✓10240-067	FITTING, 3/4" STRT SWV FLG SW, GG	1		2	✓10240-068	FITTING, 3/4" STRT SWV FLG SW	1		3	10260-004	PIPE, 0.750 Ø, EXTRA HEAVY	1	58.327
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<p>PIPE DETAIL ORIENTED FOR TRUE DIMENSIONING SCALE 0.125</p>																												
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<p>Made By: IHK Date: 12-12-12 Ref Dwg: -</p>																												
<p>Approved: JWB <span style="font-family: cursive;">JWB</span> Do Not Scale Drawing Est. Wt: 8.71 lbs</p>																												
<p><b>ASSEMBLY, CNTRL VALVE TO E/L PIPE</b></p>																												
<table border="1"> <tr> <td>Size</td> <td>Drawing / Part Number</td> <td>Rev.</td> </tr> <tr> <td>B</td> <td>A108966-000</td> <td>-</td> </tr> </table>									Size	Drawing / Part Number	Rev.	B	A108966-000	-														
Size	Drawing / Part Number	Rev.																										
B	A108966-000	-																										

ECO CAS600067

**NOTE:**

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3. PIPE DIMENSIONS ARE FOR REFERENCE ONLY, MANUFACTURING TO DETERMINE FINAL ASSEMBLY DIMENSIONS.

A✓

11/20/21  
Rev.  
done

9	8	7	6	◊	4	3	2	

**PIPE ASSEMBLY**  
ORIENTED FOR TRUE DIMENSIONING  
SCALE 0.094

0.125 ✓ 3.313 1:W (TYP 2 PLCS)

70.522

69.272

48.964

R4.500  
5.837 (TYP 2 PLCS)

74.3° (TYP)  
17.668

8.527

**PIPE DETAIL**  
ORIENTED FOR TRUE DIMENSIONING  
SCALE 0.094

**BILL OF MATERIAL**

Item No.	Part No.	Description	Quantity	Unit Length
1	✓ 10240-067	FITTING, 3/4" STRT SWV FLG SW, GG	2	
2	10260-004	PIPE, 0.750 Ø, EXTPA HEAVY	1	80.695

M 116608-000 Control part

**REVISIONS**

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Diagonals 0.125 Max. Variation	Angles $\pm 1^\circ$
Radii will be thickness of material	Tolerances are not accumulative

Made By: NHK Date: 12-12-12 Ref Dwg: -  
Approved: JWB Do Not Scale Drawing Est. Wt: 11.41 lbs

**ASSEMBLY, CNTRL VALVE TO E/L PIPE**

Size	Drawing / Part Number	Rev.
B	A108967-000	A

Eco CAS600067

**NOTE:**

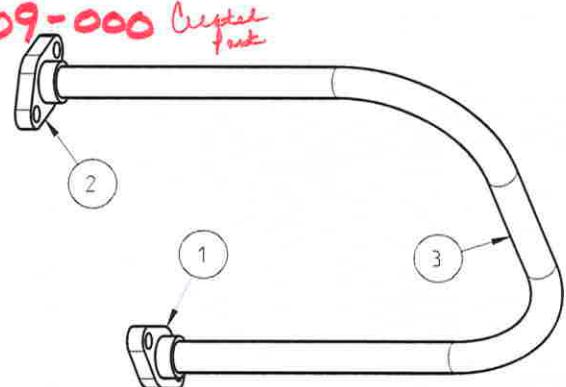
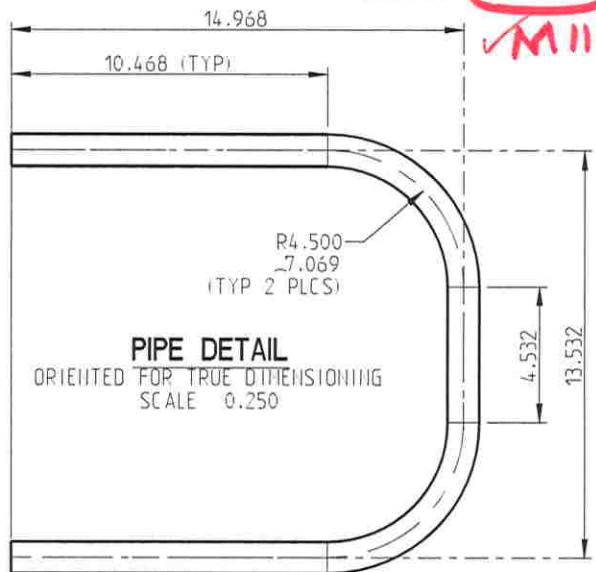
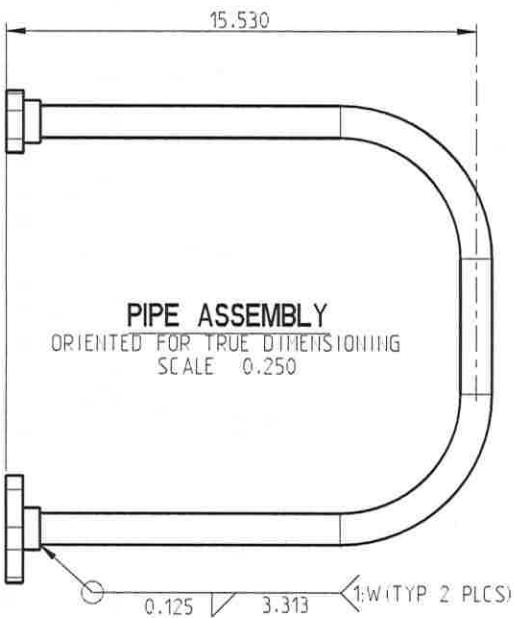
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3. PIPE DIMENSIONS ARE FOR REFERENCE ONLY, MANUFACTURING TO DETERMINE FINAL ASSEMBLY DIMENSIONS.
4. PIPING TO BE IN ACCORDANCE WITH AAR SPECIFICATION S-402.

11/22/12  
Per,  
done ✓

9 8 7 6 ◇ 4 3 2 1

## BILL OF MATERIAL

Item No.	Part No.	Description	Quantity	Unit Length
1	✓ 10240-067	FITTING, 3/4" STRT SWV FLG SW. GG	1	
2	✓ 10240-068	FITTING, 3/4" STRT SWV FLG SW	1	
3	10260-004	PIPE, 0.750 Ø, EXTRA HEAVY	1	39.604



Level	Date	Approved	Description
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## REVISIONS

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Diagonals 0.125 Max. Variation	Angles $\pm 1^\circ$
Radius will be thickness of material	Tolerances are not accumulative

Made By: HHK Date: 12-12-12 Ref Dwg: -  
Approved: JW BJB Do Not Scale Drawing Est. Wt: 6.41 lbs

### ASSEMBLY, E/L TO CYLINDER PIPE

Size	Drawing / Part Number	Rev.
B	A108968-000	-

### NOTE:

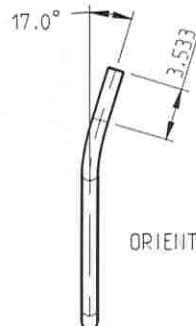
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ECO CAS600067

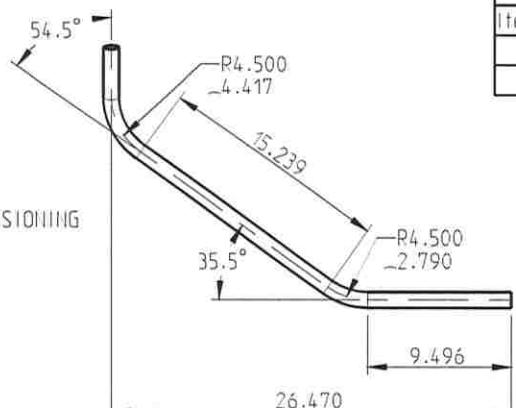
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11/22/11  
per.  
done

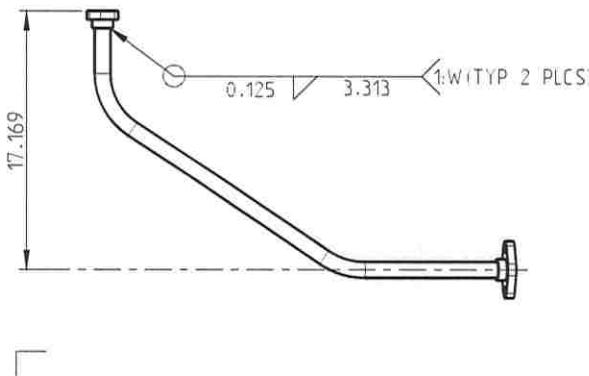
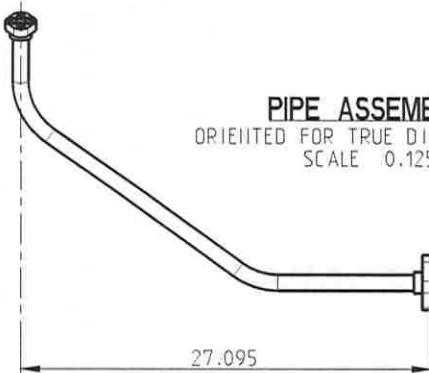
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**PIPE DETAIL**  
ORIENTED FOR TRUE DIMENSIONING  
SCALE 0.125



**PIPE ASSEMBLY**  
ORIENTED FOR TRUE DIMENSIONING  
SCALE 0.125



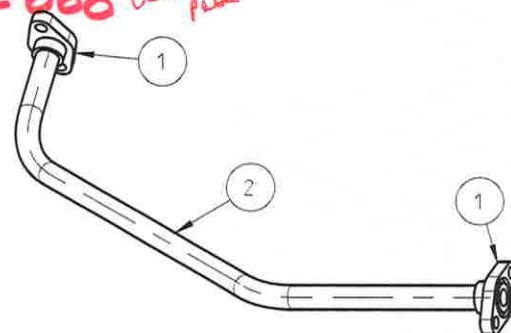
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**BILL OF MATERIAL**

Item No.	Part No.	Description	Quantity	Unit Length
1	✓ 10240-067	FITTING, 3/4" STRT SWV FLG SW, GG	2	
2	10260-004	PIPE, 0.750 Ø, EXTRU HEAVY	1	35.475

M116610-000 *Welded part*



B 11-01-17 JAG	JAG	ADDED NOTE #4 AND UPDATED PIPE TO MEET AAR SPECIFICATION
A 12-16-15 JAG		UPDATED PIPE ASSEMBLY TO MATCH CYLINDER DIMENSIONS
Level Date Approved		Description

**REVISIONS**

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Diagonals 0.125 Max. Variation	Angles $\pm 1^\circ$
Radius will be thickness of material	Tolerances are not accumulative
Made By: NHK	Date: 12-12-12 Ref Dwg: -
Approved: JWB	Do Not Scale Drawing Est. Wt: 5.87 lbs

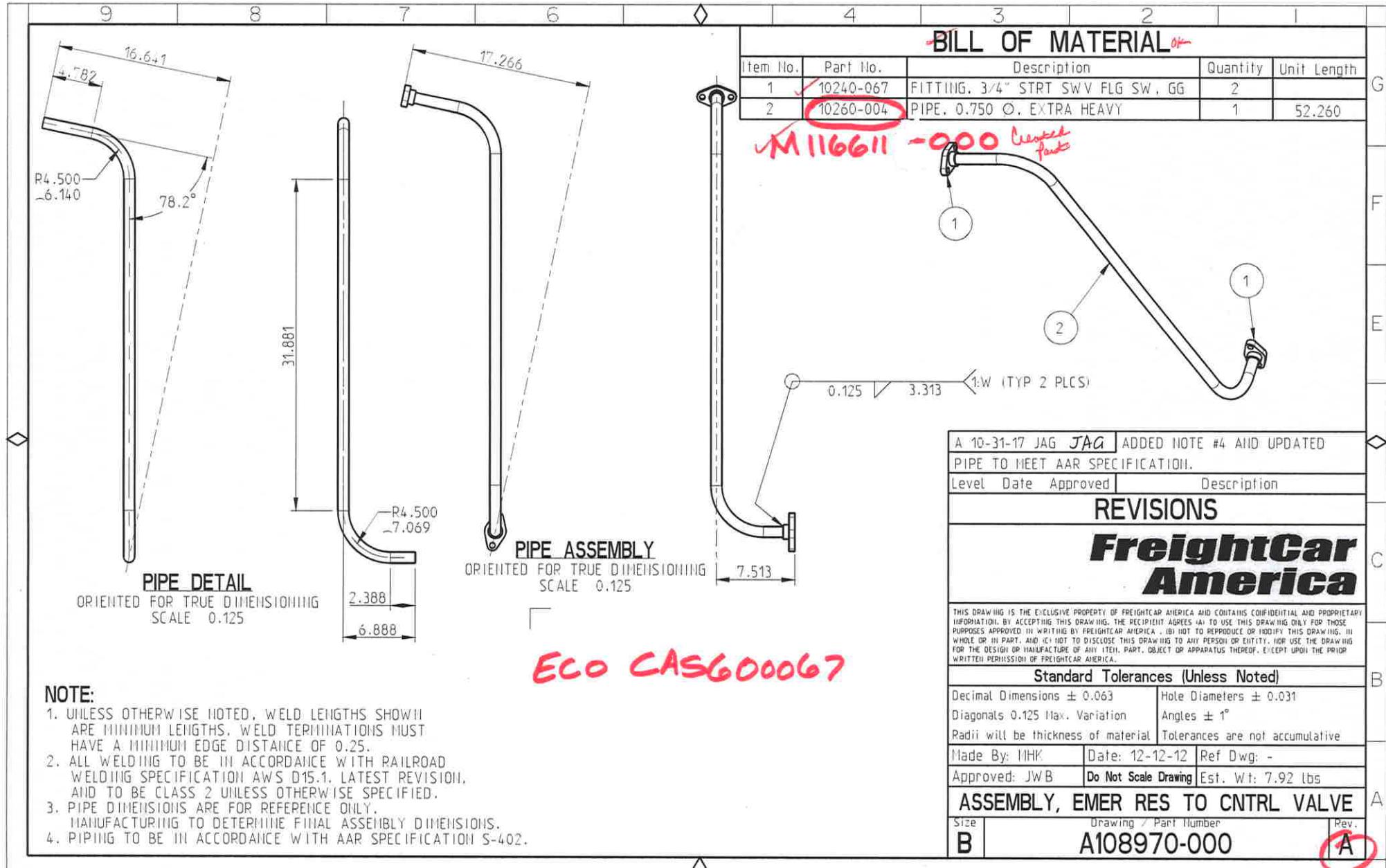
**ASSEMBLY, E/L TO CYLINDER PIPE**

Size	Drawing / Part Number	Rev.
B	A108969-000	B

C  
C

*ECO CAS600067*

11/20/12  
Rev.  
done

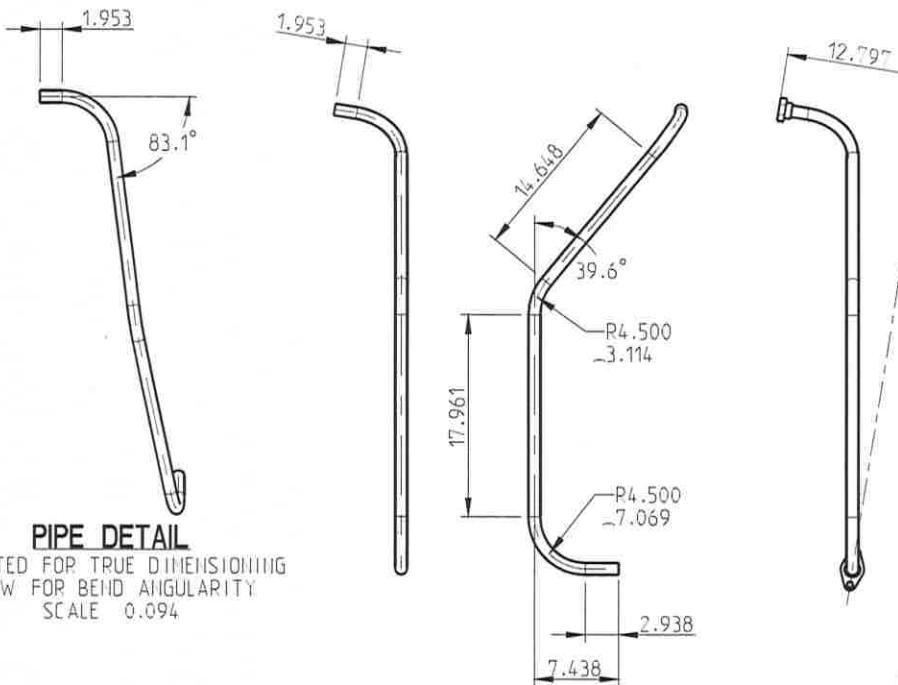


11/22/21  
Peer ✓  
done

## BILL OF MATERIAL

Item No.	Part No.	Description	Quantity	Unit Length
1	✓ 10240-067	FITTING, 3/4" STRT SWV FLG SW, GG	2	
2	✓ 10260-004	PIPE, 0.750 O. EXTRA HEAVY	1	54.205

M116(012-000) Cerset



## PIPE DETAIL

ORIENTED FOR TRUE DIMENSIONING  
VIEW FOR BEND ANGULARITY  
SCALE 0.094

**PIPE DETAIL**  
ORIENTED FOR TRUE DIMENSIONING  
SCALE 0.094

**PIPE ASSEMBLY**  
ORIENTED FOR TRUE DIMENSIONING  
SCALE 0.094

**NOTE:**

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MANUFACTURING TO DETERMINE FINAL ASSEMBLY DIMENSIONS.
  4. PIPING TO BE IN ACCORDANCE WITH AAR SPECIFICATION S-402.

Eco CAS600067

A 10-31-17 JAG JAG	ADDED IIOTE #4 AID UPDATED PIPE TO MEET AAR SPECIFICATION	
Level	Date Approved	Description

## **REVISIONS**

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Decimal Dimensions $\pm$ 0.063	Hole Diameters $\pm$ 0.031
Diagonals 0.125 Max. Variation	Angles $\pm$ 1°
Padlii will be thickness of material	Tolerances are not accumulative

Made By: MHK Date: 12-12-12 Ref Dwg: -

Approved: JWB Do Not Scale Drawing Est. Wt: 8-16 lbs

**ASSEMBLY AUX PFS TO CONTROL VAL**

ASSEMBLY, AUX RES TO CNTRL VAL

Size Drawing / Part Number  
**P** **M00071-000**

B A108971-000

Digitized by srujanika@gmail.com

Digitized by srujanika@gmail.com

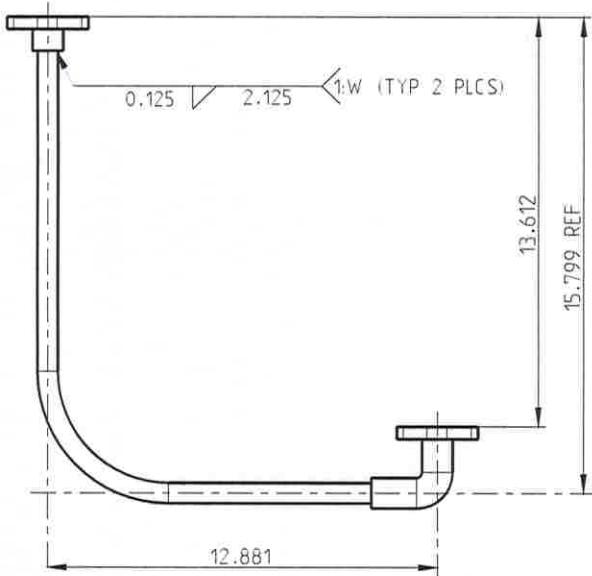
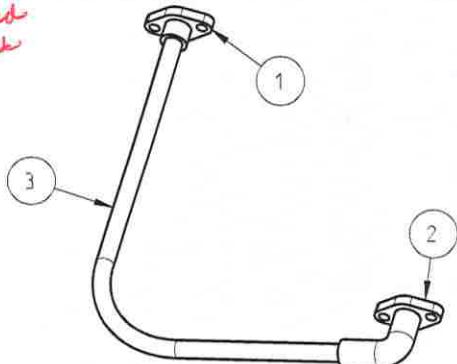
11/22/01  
Per  
done ✓

9 8 7 6 ◇ 4 3 2 1

## BILL OF MATERIAL

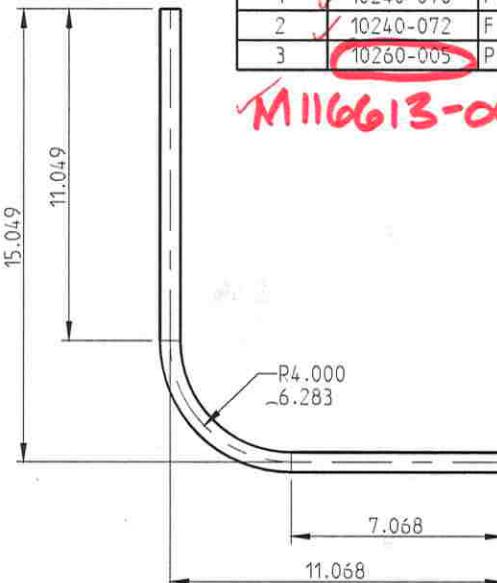
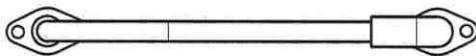
Item No.	Part No.	Description	Quantity	Unit Length
1	✓ 10240-070	FITTING, 3/8" STRT SWV FLG SW, GG	1	
2	✓ 10240-072	FITTING, 3/8" SWV FLG 90 ELBOW SW, GG	1	
3	10260-005	PIPE, 0.375 Ø, EXTRA HEAVY	1	24.400

M116613-000 Created part



### PIPE ASSEMBLY

ORIENTED FOR TRUE DIMENSIONING  
SCALE 0.250



### PIPE DETAIL

ORIENTED FOR TRUE DIMENSIONING  
SCALE 0.250

Eco CAS60006?

### NOTE:

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4. PIPING TO BE IN ACCORDANCE WITH AAR SPECIFICATION S-402.

A 10-31-17 JAG JAG	ADDED NOTE #4 AND UPDATED PIPE TO MEET AAR SPECIFICATION
Level Date Approved	Description

### REVISIONS

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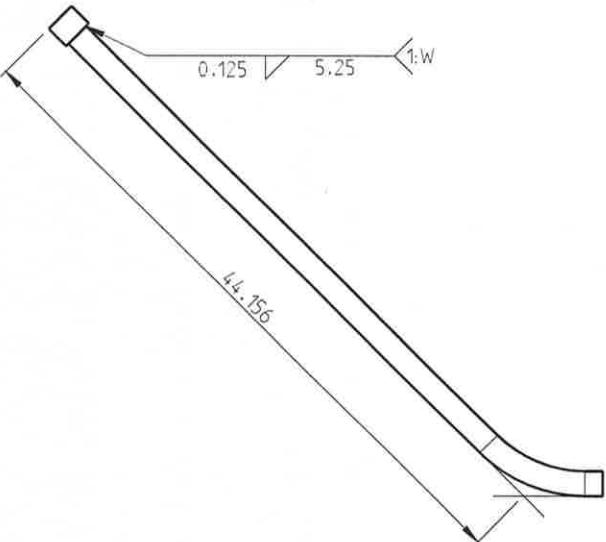
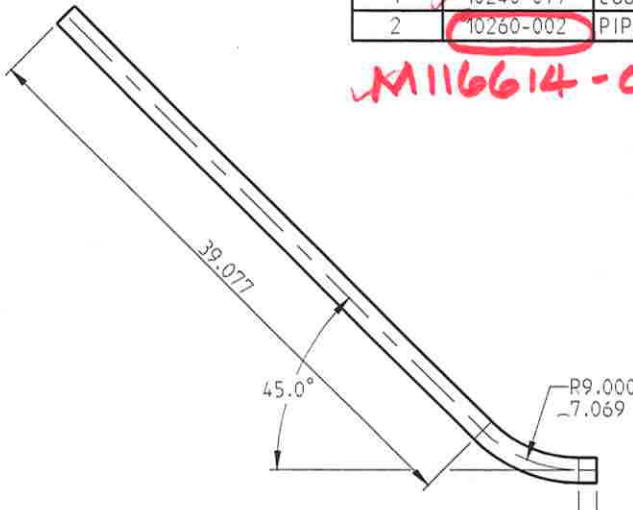
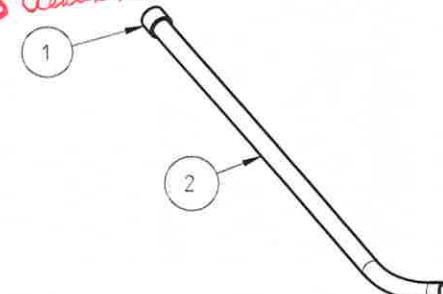
Made By: MHK Date: 12-12-12 Ref Dwg: -  
Approved: JWB Do Not Scale Drawing Est. Wt: 2.54 lbs

### ASSEMBLY, CNTRL VALVE TO RET VALVE

Size	Drawing / Part Number	Rev.
B	A108972-000	A

B✓

11/22/12  
Rev. ✓  
done

9	8	7	6	5	4	3	2																
 <p><b>PIPE ASSEMBLY</b> ORIENTED FOR TRUE DIMENSIONING SCALE 0.125</p>																							
 <p><b>PIPE DETAIL</b> ORIENTED FOR TRUE DIMENSIONING SCALE 0.125</p>																							
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Item No.	Part No.	Description	Quantity	Unit Length																			
1	✓ 10240-077	COUPLING, 1 1/4" SW X SW	1																				
2	10260-002	PIPE, 1.250 Ø, EXTRA HEAVY	1	47.339																			
<p>B 11-01-17 JAG JAG ADDED NOTE #4 AND UPDATED PIPE TO MEET AAR SPECIFICATION A 01-02-13 JWB ECO DAW100146: DIM 1.193 WAS 2.193. UPDATED PIPE LENGTH ACCORDINGLY. Level Date Approved Description</p>																							
<p><b>REVISIONS</b></p> <p><b>FreightCar America</b></p>																							
<p>THIS DRAWING IS THE EXCLUSIVE PROPERTY OF FREIGHTCAR AMERICA AND CONTAINS CONFIDENTIAL AND PROPRIETARY INFORMATION. BY ACCEPTING THIS DRAWING, THE RECIPIENT AGREES (A) TO USE THIS DRAWING ONLY FOR THOSE PURPOSES APPROVED AND WORKED ON BY FREIGHTCAR AMERICA, (B) NOT TO REPRODUCE OR MODIFY THIS DRAWING, (C) NOT TO DISCLOSE THIS DRAWING TO ANY PERSON OR ENTITY, NOR USE THE DRAWING FOR THE DESIGN OR MANUFACTURE OF ANY ITEM, PART, OBJECT OR APPARATUS THEREOF, EXCEPT UPON THE PRIOR WRITTEN PERMISSION OF FREIGHTCAR AMERICA.</p>																							
<p><b>Standard Tolerances (Unless Noted)</b></p> <table border="1"> <tr> <td>Decimal Dimensions <math>\pm 0.063</math></td> <td>Hole Diameters <math>\pm 0.031</math></td> </tr> <tr> <td>Diagonals 0.125 Max. Variation</td> <td>Angles <math>\pm 1^\circ</math></td> </tr> <tr> <td colspan="2">Radii will be thickness of material</td> </tr> <tr> <td colspan="2">Tolerances are not accumulative</td> </tr> </table>									Decimal Dimensions $\pm 0.063$	Hole Diameters $\pm 0.031$	Diagonals 0.125 Max. Variation	Angles $\pm 1^\circ$	Radii will be thickness of material		Tolerances are not accumulative								
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<p>Made By: NIK Date: 12-12-12 Ref Dwg: N/A Approved: JWB Do Not Scale Drawing Est. Wt: 12.50 lbs</p>																							
<p><b>ASSEMBLY, TRAINLINE PIPE @ B-END</b></p> <table border="1"> <tr> <td>Size</td> <td>Drawing / Part Number</td> <td>Rev.</td> </tr> <tr> <td>B</td> <td>A108973-000</td> <td>B</td> </tr> </table>									Size	Drawing / Part Number	Rev.	B	A108973-000	B									
Size	Drawing / Part Number	Rev.																					
B	A108973-000	B																					

**NOTE:**

1. UNLESS OTHERWISE NOTED, WELD LENGTHS SHOWN ARE MINIMUM LENGTHS. WELD TERMINATIONS MUST HAVE A MINIMUM EDGE DISTANCE OF 0.25.
2. ALL WELDING TO BE IN ACCORDANCE WITH RAILROAD WELDING SPECIFICATION AWS D15.1, LATEST REVISION, AND TO BE CLASS 2 UNLESS OTHERWISE SPECIFIED.
3. PIPE DIMENSIONS ARE FOR REFERENCE ONLY. MANUFACTURING TO DETERMINE FINAL ASSEMBLY DIMENSIONS.
4. PIPING TO BE IN ACCORDANCE WITH AAR SPECIFICATION S-402.

Eco GAS600067

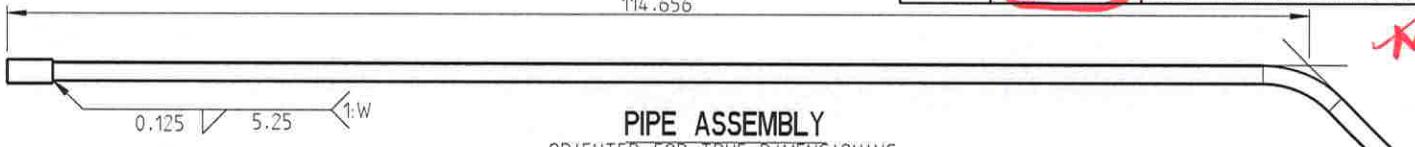
11/28/14  
Rev. done ✓

9 8 7 6 ◇ 4 3 2 1

## BILL OF MATERIAL

Item No.	Part No.	Description	Quantity	Unit Length
1	✓ 10240-145	COUPLING, 1 1/4" SW X SW DEEP	1	
2	10260-002	PIPE, 1.250 Ø, EXTRA HEAVY	1	124.887

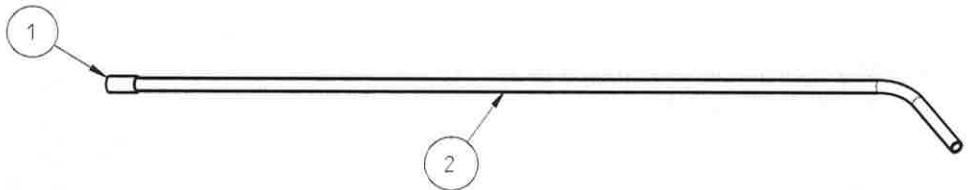
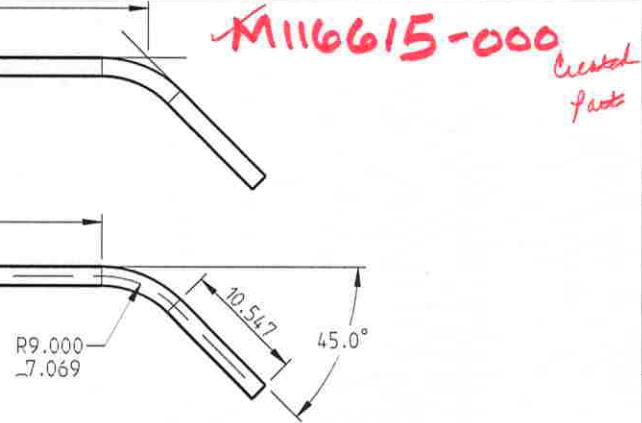
114.656



**PIPE ASSEMBLY**  
ORIENTED FOR TRUE DIMENSIONING  
SCALE 0.094

107.272

**PIPE DETAIL**  
ORIENTED FOR TRUE DIMENSIONING  
SCALE 0.094



Eco CAS600067

### NOTE:

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2. ALL WELDING TO BE IN ACCORDANCE WITH RAILROAD WELDING SPECIFICATION AWS D15.1, LATEST REVISION, AND TO BE CLASS 2 UNLESS OTHERWISE SPECIFIED.
3. PIPE DIMENSIONS ARE FOR REFERENCE ONLY. MANUFACTURING TO DETERMINE FINAL ASSEMBLY DIMENSIONS.

A 01-02-13 JWB [JWB] ECO DAH100146: DII 114.656 WAS 113.656. UPDATED PIPE LENGTH ACCORDINGLY.  
Level Date Approved Description

### REVISIONS

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### Standard Tolerances (Unless Noted)

Decimal Dimensions $\pm 0.063$	Hole Diameters $\pm 0.031$
Diagonals 0.125 Max. Variation	Angles $\pm 1^\circ$
Radii will be thickness of material	Tolerances are not accumulative
Made By: MHK	Date: 12-12-12 Ref Dwg: II/A
Approved: JWB	Do Not Scale Drawing Est. Wt: 32.75 lbs

### ASSEMBLY, TRAINLINE PIPE @ B-END ON SIDE SILL

Size	Drawing / Part Number	Rev.
B	A108974-000	A

B✓

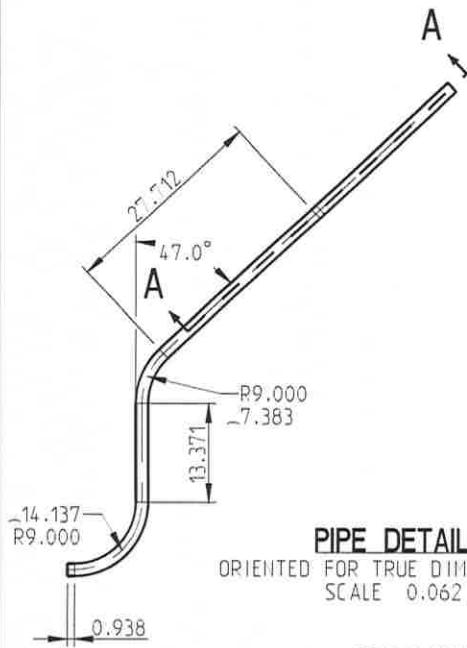
11/22/21  
Per  
done

9 8 7 6 ◇ 4 3 2

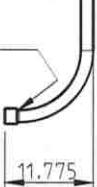
## BILL OF MATERIAL

Item No.	Part No.	Description	Quantity	Unit Length
1	✓ 10240-077	COUPLING, 1 1/4" SW X SW	2	
2	10260-002	PIPE, 1.250 Ø, EXTRA HEAVY	1	88.297

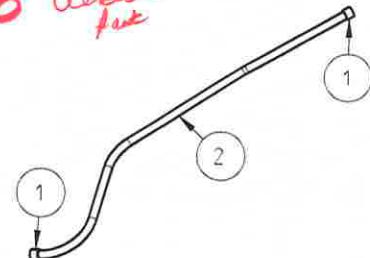
A MIL6616-000 Change part



SECTION A-A



SECTION A-A



C 11-01-17 JAG JAG ADDED NOTE #4 AND UPDATED PIPE TO MEET AAR SPECIFICATION.  
B 01-16-13 JWB PER ECO DAH100152: CHANGED PIPE ASSEMBLY TO ALLOW FOR CLEARANCE.  
A 01-02-13 JWB REVISED PRINT TO SHOW UPDATED DIMENSIONS TO ALLOW FOR CLEARANCE ON CAR BODY.

Level Date Approved Description

## REVISIONS

**FreightCar America**

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Decimal Dimensions $\pm 0.063$	Hole Diameters $\pm 0.031$
Diagonals 0.125 Max. Variation	Angles $\pm 1^\circ$
Radii will be thickness of material	Tolerances are not accumulative

Made By: MHK	Date: 12-12-12	Ref Dwg: N/A
Approved: JWB	Do Not Scale Drawing	Est. Wt: 23.41 lbs

## ASSEMBLY, TRAINLINE PIPE @ A-END

Size B	Drawing / Part Number A108975-000	Rev. C
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## NOTE:

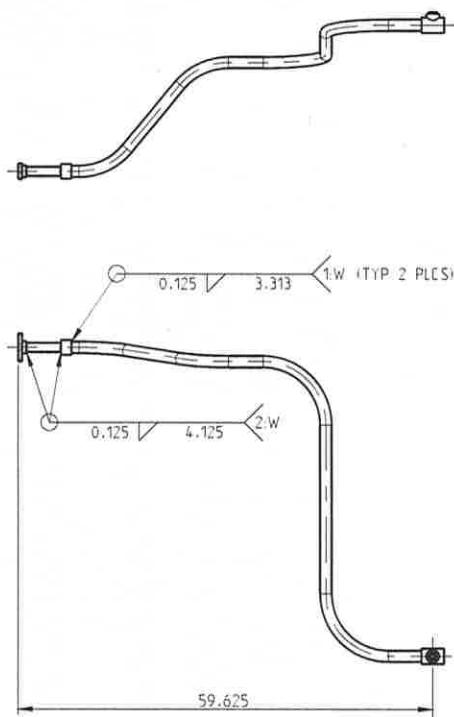
1. UNLESS OTHERWISE NOTED, WELD LENGTHS SHOWN ARE MINIMUM LENGTHS. WELD TERMINATIONS MUST HAVE A MINIMUM EDGE DISTANCE OF 0.25.
2. ALL WELDING TO BE IN ACCORDANCE WITH RAILROAD WELDING SPECIFICATION AWS D15.1, LATEST REVISION, AND TO BE CLASS 2 UNLESS OTHERWISE SPECIFIED.
3. PIPE DIMENSIONS ARE FOR REFERENCE ONLY, MANUFACTURING TO DETERMINE FINAL ASSEMBLY DIMENSIONS.
4. PIPING TO BE IN ACCORDANCE WITH AAR SPECIFICATION S-402.

ECO CAS600067

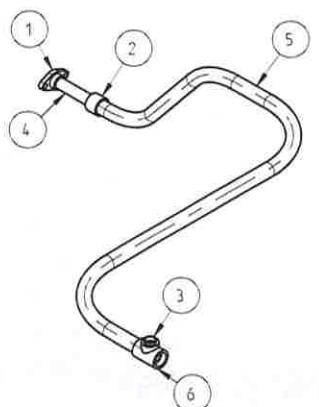
D ✓

## ✓BILL OF MATERIAL

Item No.	Part No.	Description	Quantity	Unit Length
1	✓ 10240-065	FITTING, 1" STRT SWV FLG SW, GG	1	
2	✓ 10240-130	COUPLING, 1 1/4" SW X 1" SW	1	
3	✓ 10240-149	PEDUCER INSERT, 1" TO 3/4"	1	
4	✓ 10240-333	HIPPLE, 1" X 6 1/4" XH PLAIN ENDS	1	
5	✓ 10260-002	PIPE, 1.250", EXTRA HEAVY	1	92.610
6	✓ 10293-001	BRAUCH TEE, REDUCING, 3000#	1	

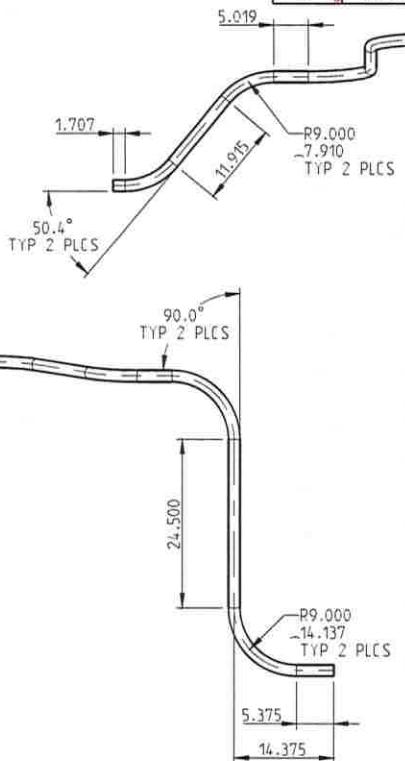
KA116617-000 Created  
part

PIPE ASSEMBLY  
ORIENTED FOR TRUE DIMENSIONS



## NOTE:

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- PIPING TO BE IN ACCORDANCE WITH AAR SPECIFICATION S-402.



PIPE DETAIL  
ORIENTED FOR TRUE DIMENSIONS

A 11-01-17 JAG JAG ADDED NOTE #4 AND UPDATED PIPE TO MEET AAR SPECIFICATION

Level Date Approved Description

## REVISIONS

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Decimal Dimensions $\pm 0.033$	Hole Diameters $\pm 0.031$
Diagonals 0.125 Max. Variation	Angles $\pm 1^\circ$
Radii will be thickness of material	Tolerances are not accumulative

Made By: STS Date: 12-17-12 Ref. Dwg: -

Approved: JWB Do Not Scale Drawing Est. Wt: 28.41 lbs

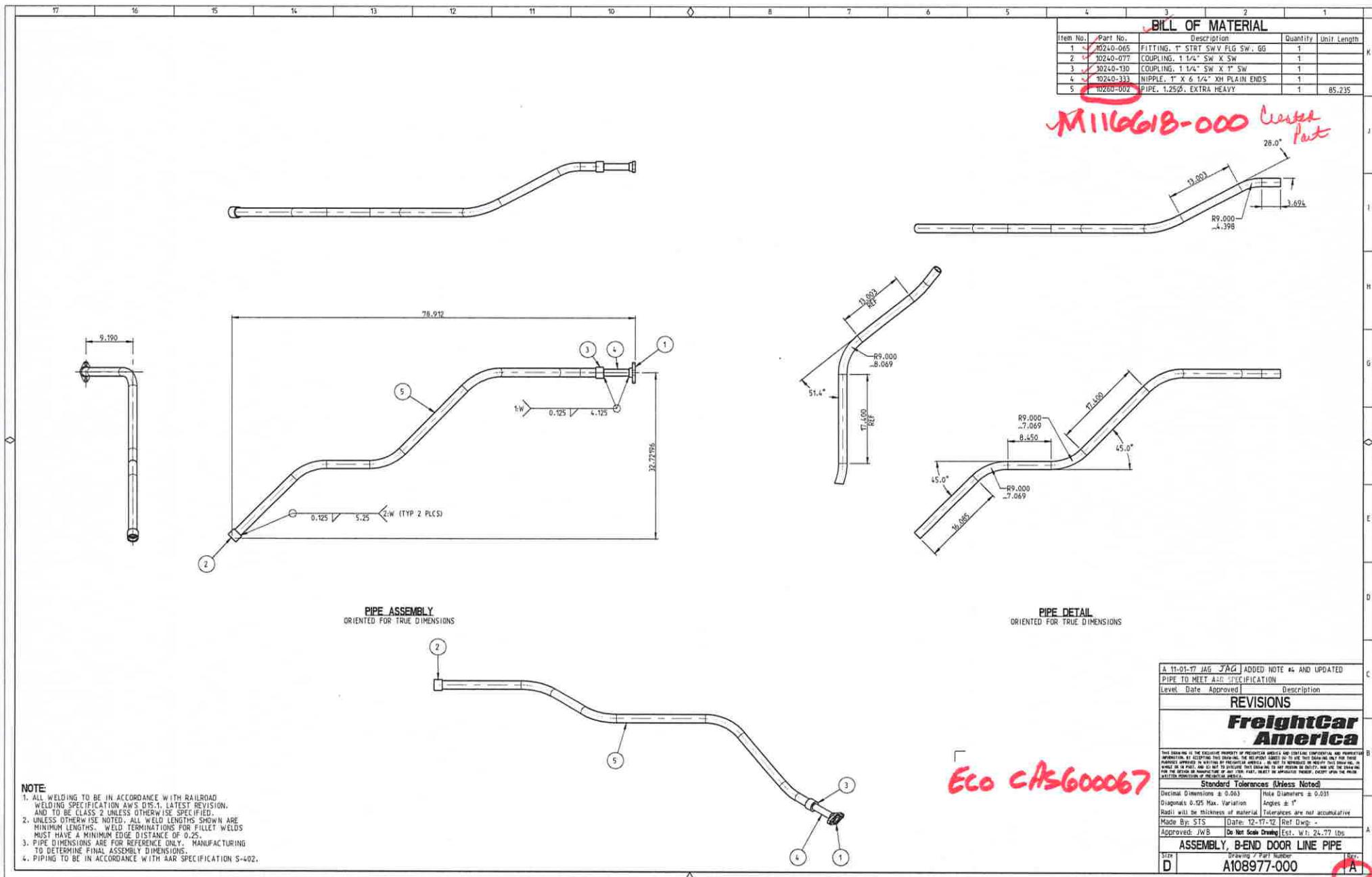
## ASSEMBLY, A-END DOOR LINE PIPE

Size C	Drawing / Part Number A108976-000	Rev. A
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Eco CAS600067

R✓

11/20/21  
few done



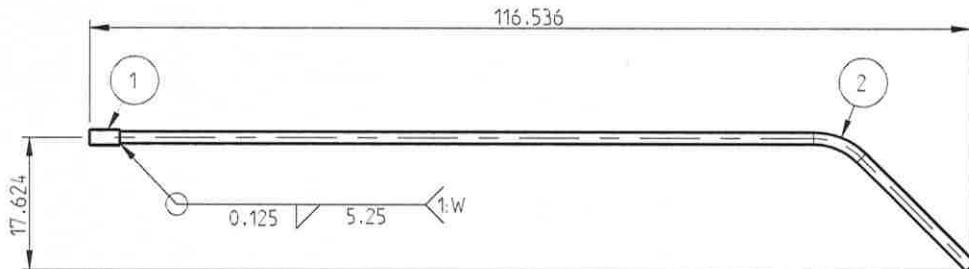
11/20/2011  
Rev.  
done

9 8 7 6 ◇ 4 3 2

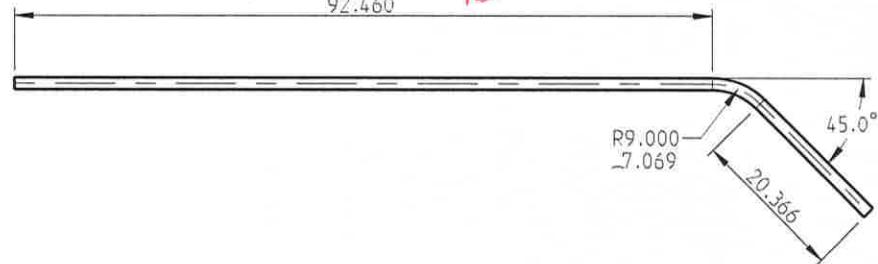
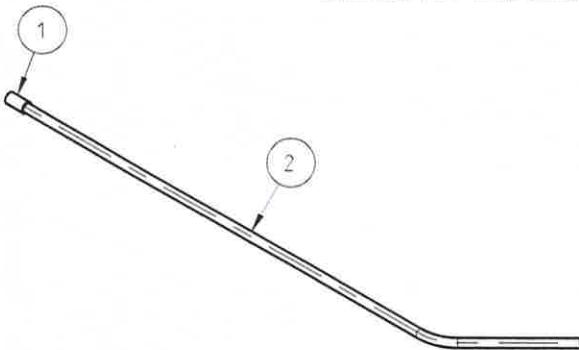
## BILL OF MATERIAL

Item No.	Part No.	Description	Quantity	Unit Length
1	✓ 10240-145	COUPLING, 1 1/4" SW X SW DEEP	1	
2	10260-002	PIPE, 1.25 O, EXTRA HEAVY	1	119.894

M116619-000 Welded part



PIPE ASSEMBLY  
ORIENTED FOR TRUE DIMENSIONS



PIPE DETAIL  
ORIENTED FOR TRUE DIMENSIONS

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Eco (AS60006)

Level	Date	Approved	Description
<b>REVISIONS</b>			
<b>FreightCar America</b>			

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### Standard Tolerances (Unless Noted)

Decimal Dimensions $\pm 0.063$	Hole Diameters $\pm 0.031$
Diagonals 0.125 Max. Variation	Angles $\pm 1^\circ$
Radii will be thickness of material	Tolerances are not accumulative

Made By: STS	Date: 12-17-12	Ref Dwg: -
Approved: JW B/WB	Do Not Scale Drawing	Est. Wt: 31.50 lbs

### ASSEMBLY, B-END DOORLINE PIPE

Size	Drawing / Part Number	Rev.
B	A108978-000	-

A ✓

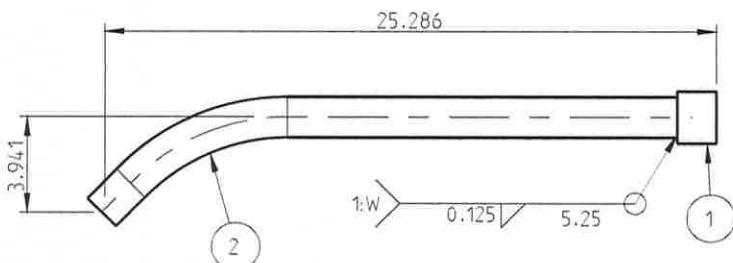
11/22/21  
per.  
done ✓

9 8 7 6 ◇ 4 3 2 1

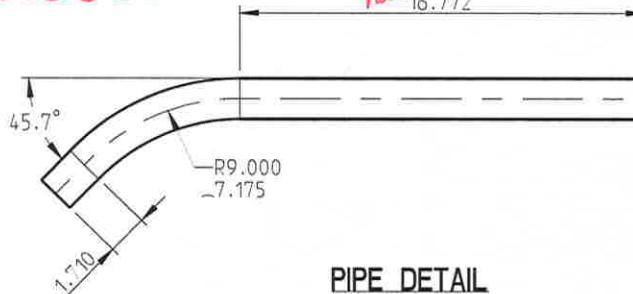
## BILL OF MATERIAL

Item No.	Part No.	Description	Quantity	Unit Length
1	✓ 10240-077	COUPLING, 1 1/4" SW X SW	1	
2	10260-002	PIPE, 1.25 Ø EXTRA HEAVY	1	25.657

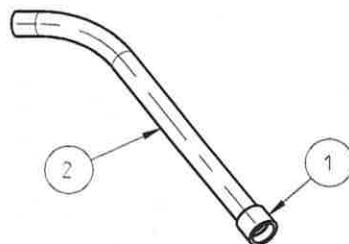
✓M116620-000 *tested per* 16.772



**PIPE ASSEMBLY**  
ORIENTED FOR TRUE DIMENSIONS



**PIPE DETAIL**  
ORIENTED FOR TRUE DIMENSIONS



Eco CAS600067

### NOTE:

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- PIPING TO BE IN ACCORDANCE WITH AAR SPECIFICATION S-402.

A 11-01-17 JAG JAG ADDED NOTE #4 AND UPDATED PIPE TO MEET AAR SPECIFICATION  
Level Date Approved Description

### REVISIONS

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### Standard Tolerances (Unless Noted)

Decimal Dimensions $\pm 0.063$	Hole Diameters $\pm 0.031$
Diagonals 0.125 Max. Variation	Angles $\pm 1^\circ$
Radii will be thickness of material	Tolerances are not accumulative

Made By: STS Date: 12-17-12 Ref Dwg: -

Approved: JWB Do Not Scale Drawing Est. Wt: 7.08 lbs

### ASSEMBLY, A-END DOORLINE TO TEE PIPE

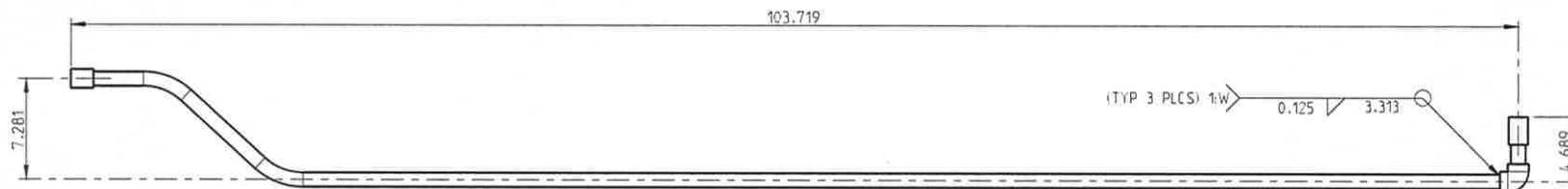
Size	Drawing / Part Number	Rev.
B	A108979-000	A

B✓

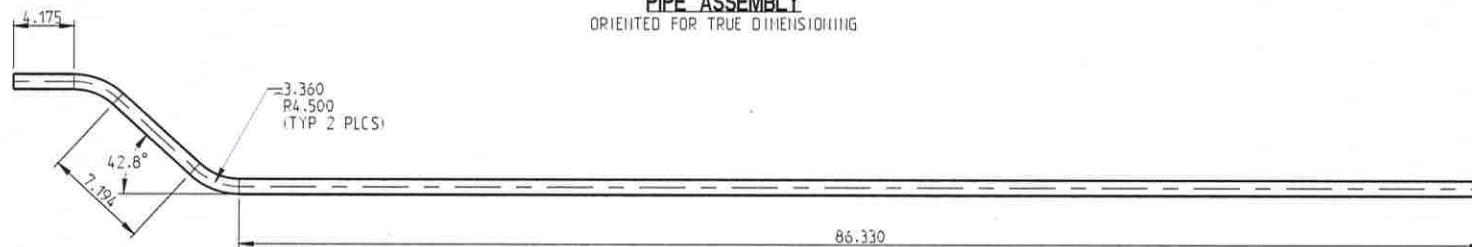
## BILL OF MATERIAL

Item No.	Part No.	Description	Quantity	Unit Length
1	✓ 10240-018	FITTING, ELBOW, 3/4" X 90 SOCKET WELD	1	
2	✓ 10240-124	COUPLING, 3/4" TAPPED X 3/4" SW	1	
3	✓ 10240-296	NUIPPLE, 3/4" X 2 1/2" XH THREADED ONE END	1	
4	✓ 10240-346	COUPLING, 3/4" THREADED, 3000 LB. FORGED	1	
5	✓ 10260-004	PIPE, 0.75 Ø, EXTRA HEAVY	1	104.419

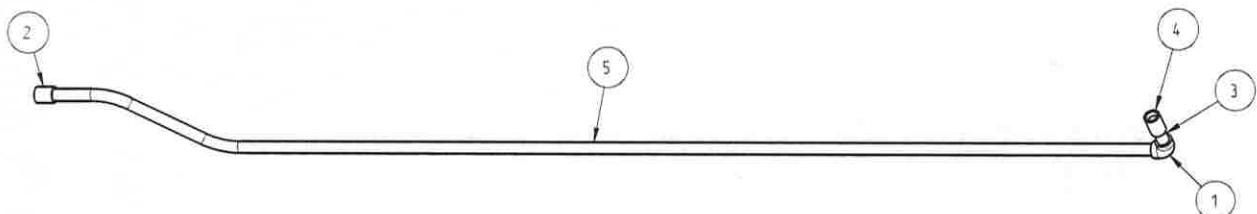
M110628-000 Central Park



PIPE ASSEMBLY  
ORIENTED FOR TRUE DIMENSIONING



PIPE DETAIL  
ORIENTED FOR TRUE DIMENSIONING



Eco CAS600067

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4. PIPING TO BE IN ACCORDANCE WITH AAR SPECIFICATION S-402.

A 11-02-17 JAG JAG	ADDED NOTE #4 AND UPDATED PIPE TO MEET AAR SPECIFICATION		
Level	Date	Approved	Description

## REVISIONS

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## Standard Tolerances (Unless Noted)

Decimal Dimensions $\pm 0.063$	Hole Diameters $\pm 0.031$
Diagonals 0.125 Max. Variation	Angles $\pm 1^\circ$
Radii will be thickness of material	Tolerances are not accumulative
Made By: JAG/PLL	Date: 09-16-16
Approved: GJF	Ref Dwg: A109884-002
Do Not Scale Drawing	Est. Wt: 14.50 lbs

## ASSEMBLY, SPOOL VALVE PIPE

Size C	Drawing / Part Number A113322-000	Rev. A
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R

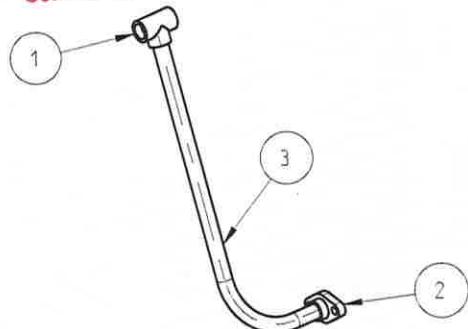
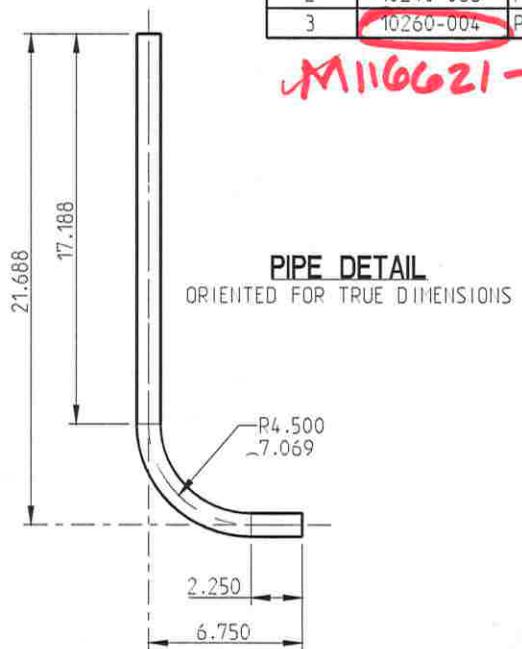
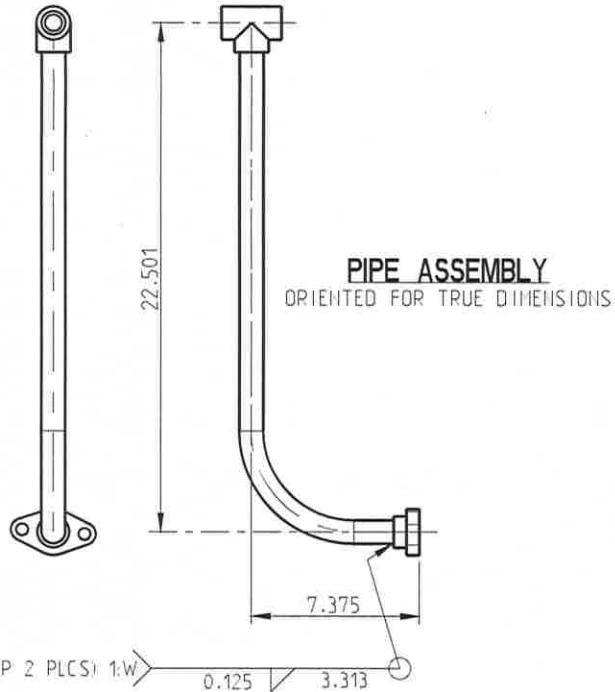
11/20/11  
Per.  
done ✓

9 8 7 6 ◇ 4 ✓ 3 2 1

## BILL OF MATERIAL

Item No.	Part No.	Description	Quantity	Unit Length
1	✓ 10240-026	TEE, 3/4" SOCKET WELD	1	
2	✓ 10240-068	FITTING, 3/4" STRT SW V FLG SW	1	
3	10260-004	PIPE, 0.750, EXTRA HEAVY	1	26.507

M116621-000 Weld Part



A 11-02-17 JAG JAG ADDED NOTE #4 AND UPDATED  
PIPE TO MEET AAR SPECIFICATION

Level Date Approved Description

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Diagonals 0.125 Max. Variation	Angles $\pm 1^\circ$
Radii will be thickness of material	Tolerances are not accumulative

Made By: CSW Date: 12-17-12 Ref Dwg: -

Approved: JWB Do Not Scale Drawing Est. Wt: 5.04 lbs

## ASSEMBLY, DOOR VALVE TO TEE PIPE

Size	Drawing / Part Number	Rev.
B	A108980-000	A

B ✓

## NOTE:

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- PIPE DIMENSIONS ARE FOR REFERENCE ONLY. MANUFACTURING TO DETERMINE FINAL ASSEMBLY DIMENSIONS.
- PIPING TO BE IN ACCORDANCE WITH AAR SPECIFICATION S-402.

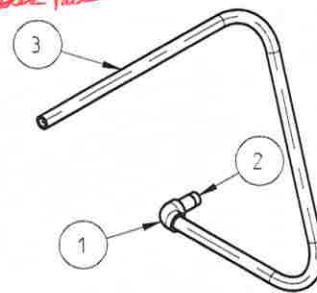
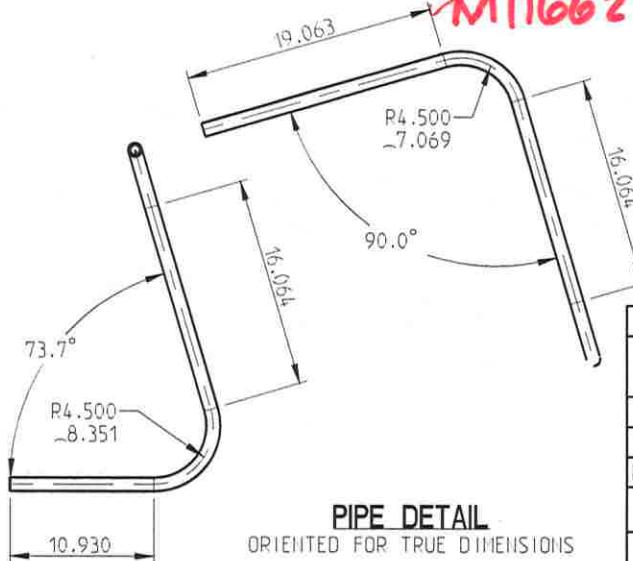
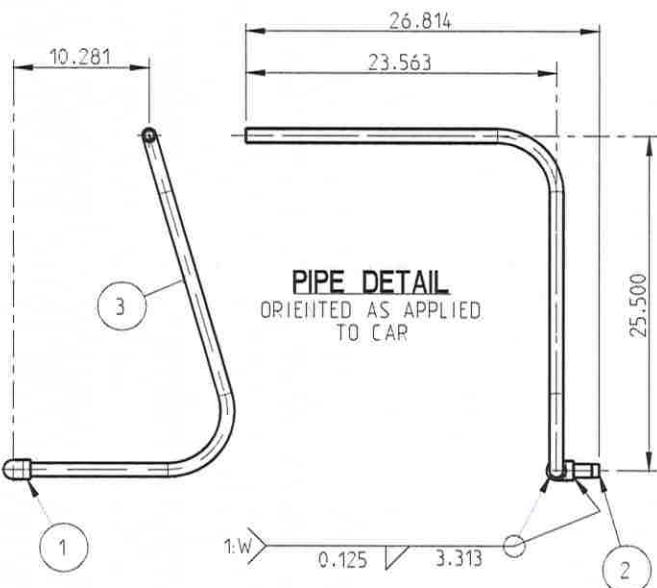
Eco CAS600067

11/22/11  
Rev. done ✓

9 8 7 6 ◇ 4 3 2 1

## BILL OF MATERIAL

Item No.	Part No.	Description	Quantity	Unit Length
1	✓ 10240-018	FITTING, ELBOW, 3/4" X 90 SOCKET WELD	1	
2	✓ 10240-296	HIPPLE, 3/4" X 2 1/2" XH THREADED ONE END	1	
3	10260-004	PIPE, 0.750, EXTRA HEAVY	1	61.476



B 11-27-17 HCH MCH DUE TO MOVING PIPE CLAMP TO INBOARD SIDE OF BOLSTER WEB FOR FIT-UP 10.930 DIN WAS 7.357

A 11-02-17 JAG ADDED NOTE #4 AND UPDATED PIPE TO MEET AAR SPECIFICATION

Level Date Approved Description

## REVISIONS

**FreightCar America**

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### Standard Tolerances (Unless Noted)

Decimal Dimensions $\pm 0.063$	Hole Diameters $\pm 0.031$
Diagonals 0.125 Max. Variation	Angles $\pm 1^\circ$
Radii will be thickness of material	Tolerances are not accumulative
Made By: STS	Date: 12-17-12 Ref Dwg: -
Approved: JWB	Do Not Scale Drawing Est. Wt: 8.03 lbs

### ASSEMBLY, "AR" WAYSIDE AIR PIPE

Size	Drawing / Part Number	Rev.
B	A108995-000	B

### NOTE:

- ALL WELDING TO BE IN ACCORDANCE WITH RAILROAD WELDING SPECIFICATION AWS D15.1, LATEST REVISION, ADD TO BE CLASS 2 UNLESS OTHERWISE SPECIFIED.
- UNLESS OTHERWISE NOTED, ALL WELD LENGTHS SHOWN ARE MINIMUM LENGTHS. WELD TERMINATIONS FOR FILLET WELDS MUST HAVE A MINIMUM EDGE DISTANCE OF 0.25.
- PIPE DIMENSIONS ARE FOR REFERENCE ONLY. MANUFACTURING TO DETERMINE FINAL ASSEMBLY DIMENSIONS.
- PIPING TO BE IN ACCORDANCE WITH AAR SPECIFICATION S-402.

Eco CAS600067

B

C ✓

11/23/21  
Per  
done

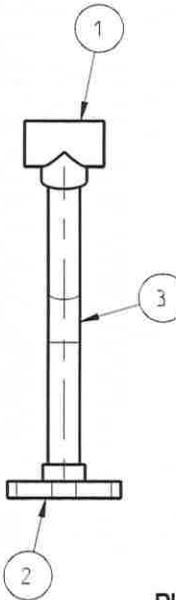
9 8 7 6 ◇ 4 3 2 1

## BILL OF MATERIAL

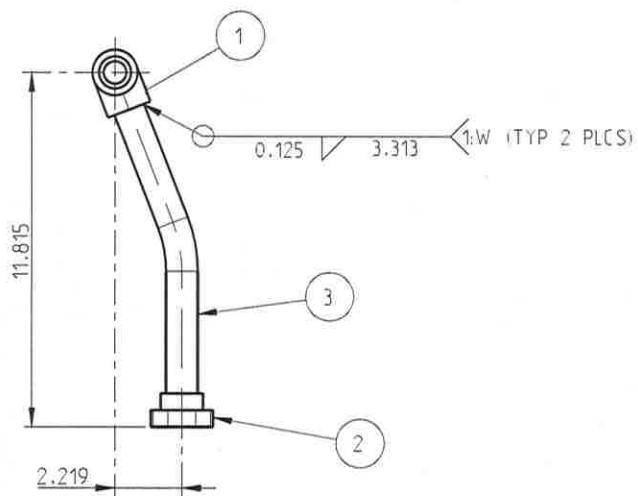
Item No.	Part No.	Description	Quantity	Unit Length
1	✓ 10240-026	TEE, 3/4" SOCKET WELD	1	
2	✓ 10240-068	FITTING, 3/4" STRT SWV FLG SW	1	
3	10260-004	PIPE, 0.750, EXTRA HEAVY	1	10.770

✓M116623-000

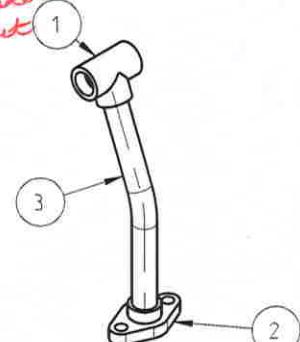
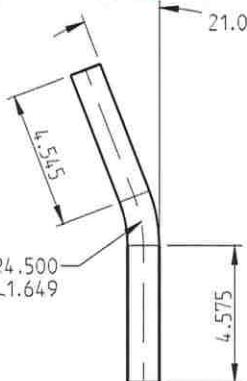
Circled part



PIPE ASSEMBLY  
ORIENTED FOR TRUE DIMENSIONS



PIPE DETAIL  
ORIENTED FOR TRUE DIMENSIONS



A 11-02-17 JAG JAG ADDED NOTE #4 AND UPDATED  
PIPE TO MEET AAR SPECIFICATION  
Level Date Approved Description

## REVISIONS

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### Standard Tolerances (Unless Noted)

Decimal Dimensions $\pm 0.063$	Hole Diameters $\pm 0.031$
Diagonals 0.125 Max. Variation	Angles $\pm 1^\circ$
Radii will be thickness of material	Tolerances are not accumulative

Made By: STS Date: 12-17-12 Ref Dwg: -

Approved: JWB Do Not Scale Drawing Est. Wt: 3.12 lbs

### ASS'Y, A-END CHECK VALVE TO TEE PIPE

Size B	Drawing / Part Number A108996-000	Rev. A
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### NOTE:

- ALL WELDING TO BE IN ACCORDANCE WITH RAILROAD WELDING SPECIFICATION AWS D15.1, LATEST REVISION, AND TO BE CLASS 2 UNLESS OTHERWISE SPECIFIED.
- UNLESS OTHERWISE NOTED, ALL WELD LENGTHS SHOWN ARE MINIMUM LENGTHS. WELD TERMINATIONS FOR FILLET WELDS MUST HAVE A MINIMUM EDGE DISTANCE OF 0.25.
- PIPE DIMENSIONS ARE FOR REFERENCE ONLY. MANUFACTURING TO DETERMINE FINAL ASSEMBLY DIMENSIONS.
- PIPING TO BE IN ACCORDANCE WITH AAR SPECIFICATION S-402.

ECO CAS600067

B✓

11/22/21  
Per.  
done

9	8	7	6	5	4	3	2	1

**ASSEMBLY VIEW**  
ORIENTED FOR TRUE DIMENSIONING

**DETAIL VIEW**  
ORIENTED FOR TRUE DIMENSIONING

**NOTE:**

- ALL WELDING TO BE IN ACCORDANCE WITH RAILROAD WELDING SPECIFICATION AWS D15.1, LATEST REVISION, AND TO BE CLASS 2 UNLESS OTHERWISE SPECIFIED.
- UNLESS OTHERWISE NOTED, ALL WELD LENGTHS SHOWN ARE MINIMUM LENGTHS. WELD TERMINATIONS FOR FILLET WELDS MUST HAVE A MINIMUM EDGE DISTANCE OF 0.25.
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- PIPING TO BE IN ACCORDANCE WITH AAR SPECIFICATION S-402.

**BILL OF MATERIAL**

Item No.	Part No.	Description	Quantity	Unit Length
1	✓ 10240-018	FITTING, ELBOW, 3/4" X 90 SOCKET WELD	1	
2	✓ 10240-296	HIPPLE, 3/4" X 2 1/2" XH THREADED ONE END	1	
3	✓ 10260-004	PIPE, 0.750, EXTRA HEAVY	1	49.438

**M110624-000** *Updated Part*

**REVISIONS**

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**Standard Tolerances (Unless Noted)**

Decimal Dimensions $\pm 0.063$	Hole Diameters $\pm 0.031$
Diagonals 0.125 Max. Variation	Angles $\pm 1^\circ$
Radii will be thickness of material	Tolerances are not accumulative

Made By: STS Date: 12-18-12 Ref Dwg: -  
Approved: JWB Do Not Scale Drawing Est. Wt: 6.55 lbs

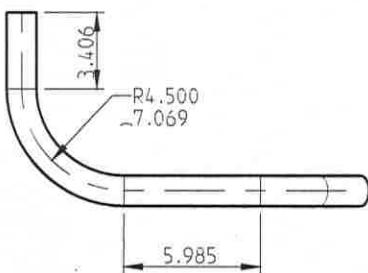
**ASSEMBLY, DOOR LINE TO QUICK DISCON. PIPE**

Size	Drawing / Part Number	Rev.
B	A108997-000	B

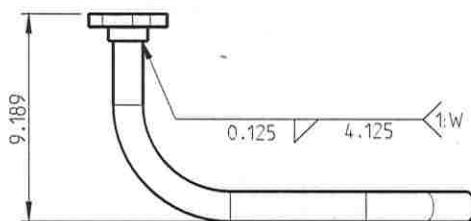
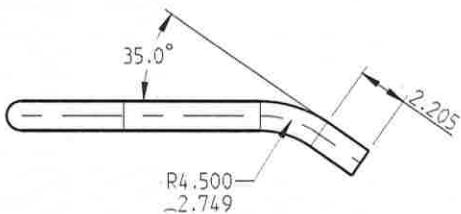
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11/23/21  
Rev.  
Date

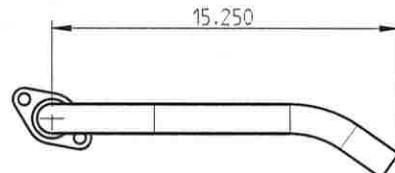
9 8 7 6 ◊ 4 3 2 1



**PIPE DETAIL**  
ORIENTED FOR TRUE DIMENSIONING  
SCALE 0.188



**PIPE ASSEMBLY**  
ORIENTED FOR TRUE DIMENSIONING  
SCALE 0.188



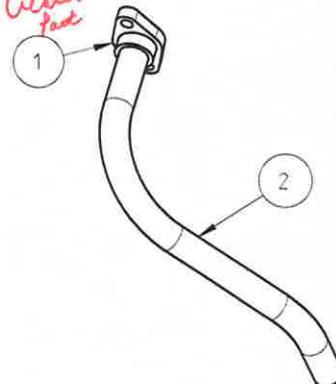
**NOTE:**

1. UNLESS OTHERWISE NOTED, WELD LENGTHS SHOWN ARE MINIMUM LENGTHS. WELD TERMINATIONS MUST HAVE A MINIMUM EDGE DISTANCE OF 0.25.
2. ALL WELDING TO BE IN ACCORDANCE WITH RAILROAD WELDING SPECIFICATION AWS D15.1, LATEST REVISION, AND TO BE CLASS 2 UNLESS OTHERWISE SPECIFIED.
3. PIPE DIMENSIONS ARE FOR REFERENCE ONLY. MANUFACTURING TO DETERMINE FINAL ASSEMBLY DIMENSIONS.
4. PIPING TO BE IN ACCORDANCE WITH AAR SPECIFICATION S-402.

ECO CAS600067

<b>BILL OF MATERIAL</b>				
Item No.	Part No.	Description	Quantity	Unit Length
1	✓10240-065	FITTING, 1" STRT SWV FLG SW, GG.	1	
2	10260-003	PIPE, 1.000 Ø, EXTRA HEAVY	1	21.414

M116625-000 *(except part 2)*



A 10-31-17 JAG JAG	ADDED NOTE #4 AND UPDATED PIPE TO MEET AAR SPECIFICATION
Level Date Approved	Description

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**Standard Tolerances (Unless Noted)**

Decimal Dimensions $\pm 0.063$	Hole Diameters $\pm 0.031$
Diagonals 0.125 Max. Variation	Angles $\pm 1^\circ$
Radii will be thickness of material	Tolerances are not accumulative

Made By: JWB/IHK	Date: 12-12-12	Ref Dwg: N/A
Approved: JWB	Do Not Scale Drawing	Est. Wt: 4.77 lbs

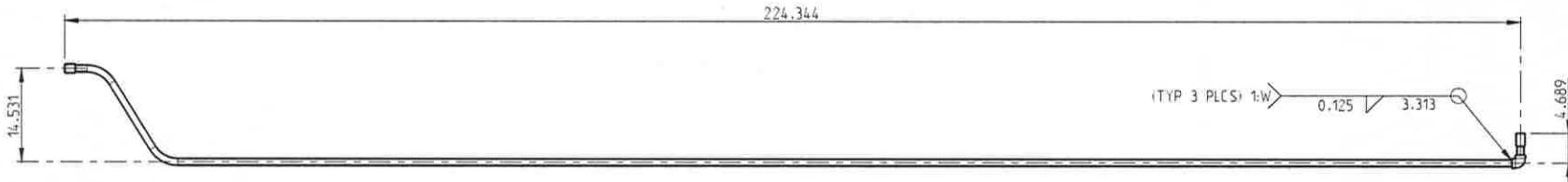
**ASSEMBLY, BRANCH PIPE**

Size	Drawing / Part Number	Rev.
B	A109012-000	A

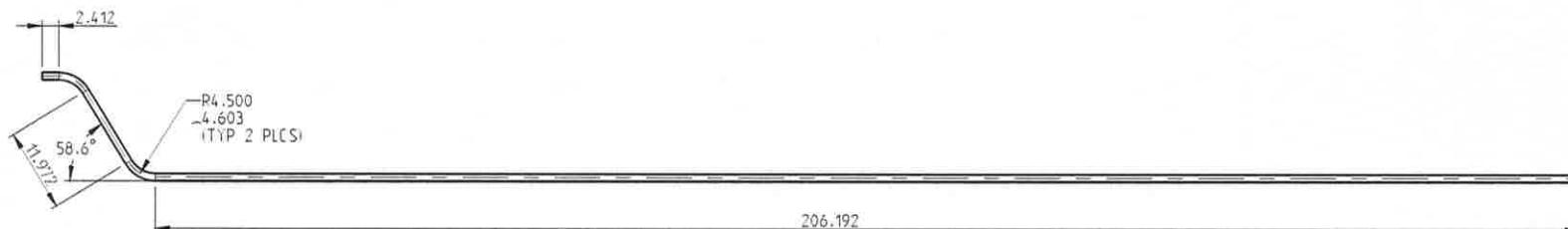
B

11	10	9	8	7	◊	5	4	3	2	1
<b>BILL OF MATERIAL</b>										
Item No.	Part No.	Description	Quantity	Unit Length						
1	10240-018	FITTING, ELBOW, 3/4" X 90 SOCKET WELD	1							
2	10240-124	COUPLING, 3/4" TAPPED X 3/4" SW	1							
3	10240-296	WIPPLE, 3/4" X 2 1/2" XH THREADED ONE END	1							
4	10240-346	COUPLING, 3/4" THREADED, 3000 LB. FORGED	1							
5	10260-004	PIPE, 0.75 O. EXTR. HEAVY	1	229.782						

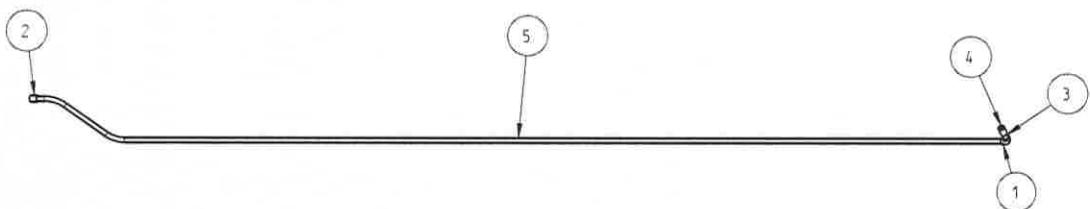
X1116626-000 *leaded part*



**PIPE ASSEMBLY**  
ORIENTED FOR TRUE DIMENSIONING



**PIPE DETAIL**  
ORIENTED FOR TRUE DIMENSIONING



**NOTE:**

1. UNLESS OTHERWISE NOTED, WELD LENGTHS SHOWN ARE MINIMUM LENGTHS. WELD TERMINATIONS MUST HAVE A MINIMUM EDGE DISTANCE OF 0.25.
2. ALL WELDING TO BE IN ACCORDANCE WITH RAILROAD WELDING SPECIFICATION AWS D15.1, LATEST REVISION, AND TO BE CLASS 2 UNLESS OTHERWISE SPECIFIED.
3. PIPE DIMENSIONS ARE FOR REFERENCE ONLY, MANUFACTURING TO DETERMINE FINAL ASSEMBLY DIMENSIONS.
4. PIPING TO BE IN ACCORDANCE WITH AAR SPECIFICATION S-402.

*Eco CAS600067*

A 11-02-17 JAG JAG	ADDED NOTE #4 AND UPDATED PIPE TO MEET AAR SPECIFICATION	
Level	Date Approved	Description

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**Standard Tolerances (Unless Noted)**

Decimal Dimensions $\pm 0.063$	Hole Diameters $\pm 0.031$
Diagonals 0.125 Max. Variation	Angles $\pm 1^\circ$
Radii will be thickness of material. Tolerances are not accumulative	
Made By: JAG/PLL	Date: 09-16-16
Approved: GJF	No Scale Drawing
Ref. Dwg: A106994-001	Est. Wt: 29.85 lbs

**ASSEMBLY, SPOOL VALVE PIPE**

Size C	Drawing / Part Number A113320-000	Rev. A
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R

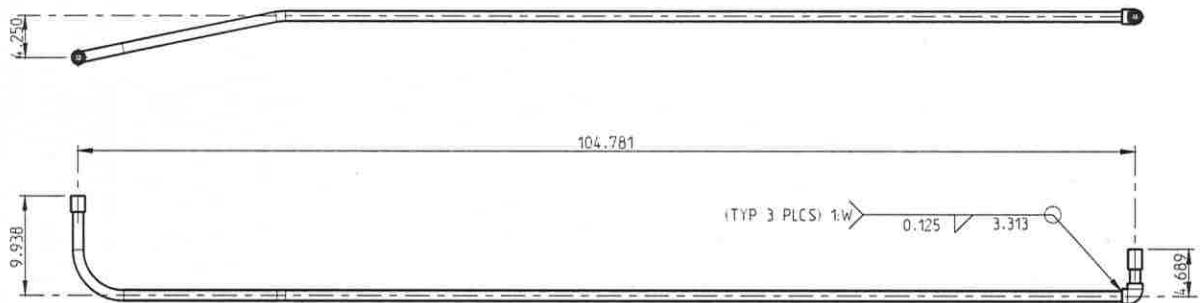
113321 Rev.  
done

11 10 9 8 7 6 5 4 3 2 1

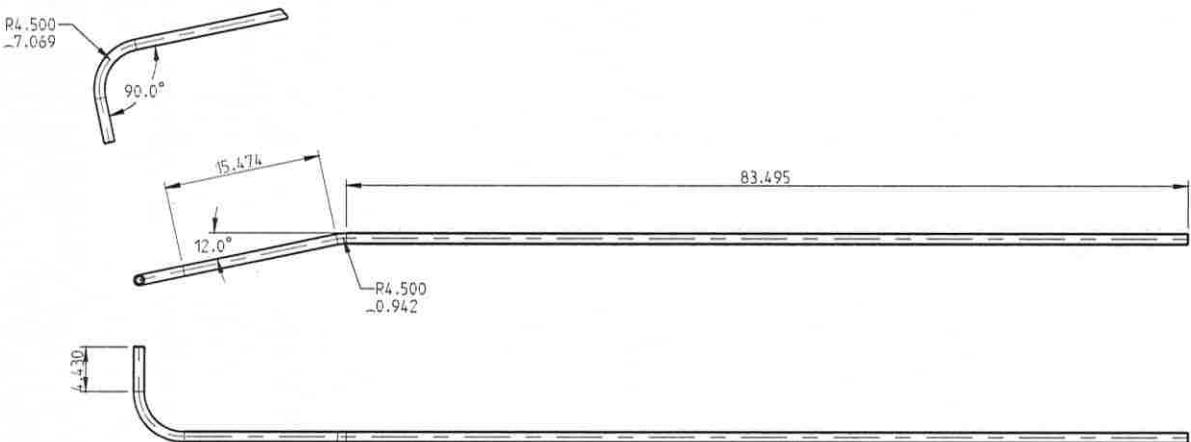
**BILL OF MATERIAL**

Item No.	Part No.	Description	Quantity	Unit Length
1	10240-018	FITTING, ELBOW, 3/4" X 90 SOCKET WELD	1	
2	10240-124	COUPLING, 3/4" TAPPED X 3/4" SW	1	
3	10240-296	HIPPLE, 3/4" X 2 1/2" XH THREADED ONE END	1	
4	10240-346	COUPLING, 3/4" THREADED, 3000 LB. FORGED	1	
5	10260-004	PIPE, 0.75 O. EXTR. HEAVY	1	111.409

M116627-000 Layout Part



**PIPE ASSEMBLY**  
ORIENTED FOR TRUE DIMENSIONING



**PIPE DETAIL**  
ORIENTED FOR TRUE DIMENSIONING

**NOTE:**

1. UNLESS OTHERWISE NOTED, WELD LENGTHS SHOWN ARE MINIMUM LENGTHS. WELD TERMINATIONS MUST HAVE A MINIMUM EDGE DISTANCE OF 0.25.
2. ALL WELDING TO BE IN ACCORDANCE WITH RAILROAD WELDING SPECIFICATION AWS D15.1, LATEST REVISION, AND TO BE CLASS 2 UNLESS OTHERWISE SPECIFIED.
3. PIPE DIMENSIONS ARE FOR REFERENCE ONLY, MANUFACTURING TO DETERMINE FINAL ASSEMBLY DIMENSIONS.
4. PIPING TO BE IN ACCORDANCE WITH AAR SPECIFICATION S-402.

Eco CAS600067

A 11-02-17 JAG	JAG	ADDED NOTE #4 AND UPDATED PIPE TO MEET AAR SPECIFICATION
Level	Date Approved	Description

**REVISIONS**

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**Standard Tolerances (Unless Noted)**

Decimal Dimensions $\pm 0.063$	Hole Diameters $\pm 0.031$
Diagonals 0.125 Max. Variation	Angles $\pm 1^\circ$
Radii will be thickness of material. Tolerances are not accumulative	
Made By: JAG/PLL Date: 09-16-16 Pet Dwg: A108944-001	
Approved: GJF	Do Not Scale Drawing Est. Wt: 15.35 lbs

**ASSEMBLY, SPOOL VALVE PIPE**

Size C	Drawing / Part Number A113321-000	Rev. A
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R✓