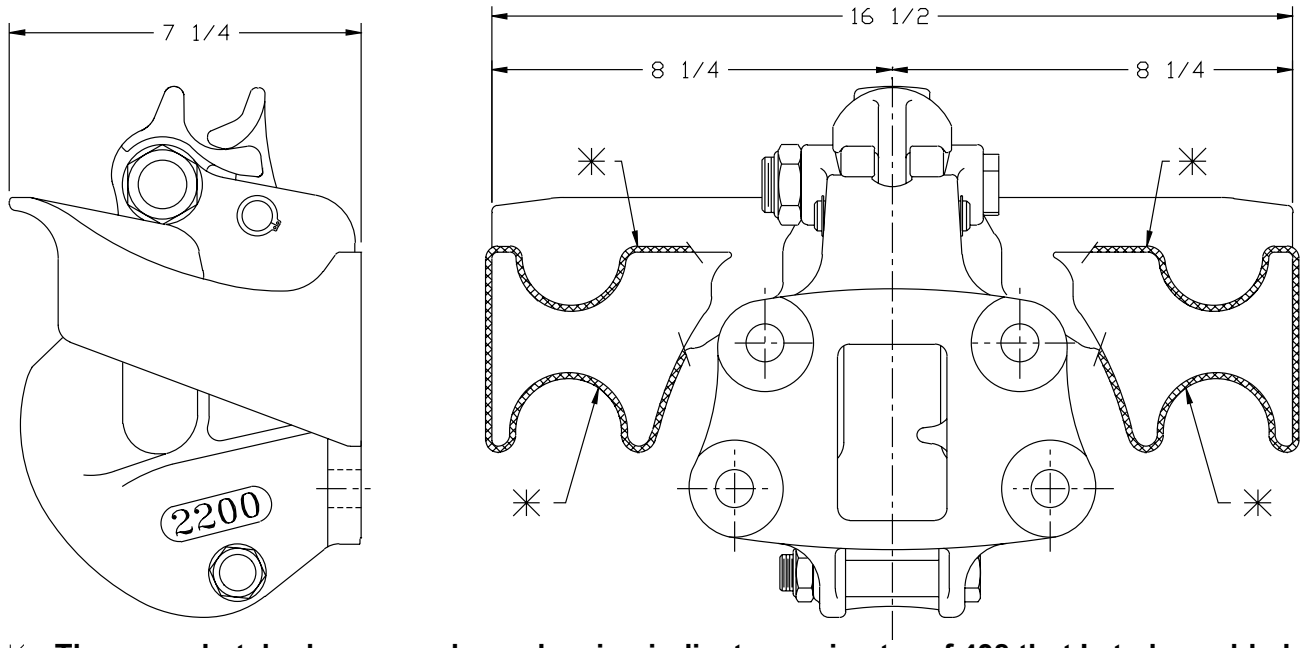
PREMIER MANUFACTURING CO.

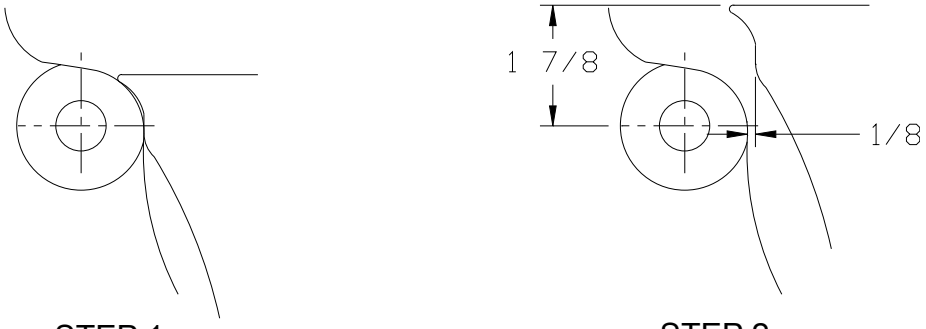
THE FIRST NAME IN QUALITY COUPLINGS

438 DRAWBAR GUIDE TO 2200 INSTALLATION GUIDE



✳ **- The cross hatched area on above drawing indicates perimeter of 438 that Is to be welded**.

To install 438 drawbar guides, follow steps 1 through 3 (see illustration below).



STEP 1 STEP 2

STEP 1: Match contours on coupling and top of guide's mounting base.

STEP 2: Once positioned, move 438 guide vertically (straight up), until top of guide's mounting surface is 1 7/8" from coupling's top hole center, and horizontally 1/8" away from 2200 body. The distance between the outer edges of the two guides should be 16 1/2".

STEP 3: Weld each drawbar guide to the trailer cross member/frame with a minimum 1/4" fillet weld around the indicated perimeter.

NOTE: DO NOT WELD THE DRAWBAR GUIDES TO THE 2200 COUPLING.

MLK 08/02/12

438 Drawbar Guides

WELDING PROCEDURES

WELDING PROCEDURE SPECIFICATION (WPS) Yes (X)
PREQUALIFIED (X) QUALIFIED BY TESTING (X) or PROCEDURE
QUALIFICATION RECORD (PQR) Yes (X)

GMAW		Identification #: PMEM-1		
		Revision 0	Date: 2/1/00	By: PI
Company Name: Premier Manufacturing Co.		Authorized By:		Date:
Welding Process(es): GMAW		Type: Manual:		Semi-Automatic: (X)
Supporting PQR No.(s): N/A Prequalified		Machine:		Automatic:
JOINT DESIGN USED		**POSITION**		
Type: All Fillets, Butts (See Attached)		Position of Groove: 1G, 2G		Filet: 1F, 2F
Single (X)	Double Weld (X)	Vertical Progression: Up (X)		Down ( )
Backing: Yes (X)	No (X)	**LECTRICAL CHARACTERISTICS**		
Backing Material: M1-P1-S1 Group 1 &2		Transfer Mode (GMAW) short-circuiting ( )		
Root Opening: ---	Root Face Dimension: ---	Globular (X) Spray (X)		
Groove Angle: ---	Radius (J-U): ---	Current: AC ( ) DCEP(X) DCEN ( ) Pulsed ( )		
Back Gouging: Yes (X) No (X) Method: Mech/Thermal		Other:		
BASE METALS		**TECHNIQUE**		
Material Spec.: M1-P1-S1 1026 Carbon Steel		Stringer or Weave Bead: String or Weave		
Type or Grade: Group 1 & 2		Multi-Pass or Single Pass (per side): Single, Multiple		
Thickness: Groove: 1/8 - 1 1/8"	Fillet: Unlimited	Number of electrodes: Single		
Diameter (Pipe): 4" minimum		Electrode Spacing:	Longitudinal: ---	
FILLER METALS			Lateral: ---	
AWS Specification: A5.18			Angle: ---	
AWS Classification: E70S-1		Contact Tube to Work Distance: 3/4" ±1/8"		
SHIELDING		Peening: Recommended		
Flux:	Gas: CO^2	Interpass Cleaning: Mechanical		
	Composition: 100%	**POSTWELD HEAT TREATMENT**		
Electrode-Flux (Class)	Flow Rate: 30-50 cfh	Temp.:		
	Gas Cup Size: 1/2" Dia.	Time:		
PREHEAT				
Preheat Temp.: Min.: 100°F				
Interpass Temp.: Min. 100°F	Max.: 500°F			

WELDING PROCEDURE

Pass or Weld Layer(s)	Process	Filler Metals		Current		Volts	Travel Speed	Joint Details
		Class	Diam.	Type & Polarity	Amps or Wire Feed Speed			See Attached
All	GMAW	E70S-X	0.035	DCEP	190-230	22-31	13 ±1 IPM	
All	GMAW	E70S-X	0.045	DCEP	260-290	27-31	13 ±1 IPM	

WELDING PROCEDURE SPECIFICATION (WPS) Yes (X)
PREQUALIFIED (X) QUALIFIED BY TESTING ( ) or PROCEDURE
QUALIFICATION RECORD (PQR) Yes ( )

SMAW		Identification #: PMSMA-1		
		Revision 0	Date: 2/1/00	By: PI
Company Name: Premier Manufacturing Co.		Authorized By:		Date:
Welding Process(es): SMAW		Type: Manual: (X)		Semi-Automatic:
Supporting PQR No.(s): N/A (Pre-Qualified)		Machine:		Automatic:
JOINT DESIGN USED		**POSITION**		
Type: All Fillets-Butts (See Attached)		Position of Groove: All		Fillet: All
Single (X)	Double Weld (X)	Vertical Progression: Up (X)		Down ( )
Backing: Yes (X)	No (X)	**ELECTRICAL CHARACTERISTICS**		
Backing Material: M1-P1-S1, Group 1 & 2		Transfer Mode (GMAW) short-circuiting ( )		
Root Opening: ---	Root Face Dimension: ---	Globular ( ) Spray ( )		
Groove Angle: ---	Radius (J-U): ---	Current: AC ( ) DCEP (X) DCEN ( ) Pulsed ( )		
Back Gouging: Yes (X) No (X) Method: Mech/Thermal		Other:		
BASE METALS		**TECHNIQUE**		
Material Spec.: M1-P1-S1 1026 Carbon Steel		Stringer or Weave Bead: String and Weave		
Type or Grade: Group 1 and 2		Multi-Pass or Single Pass (per side): Multiple/Single		
Thickness: Groove: 1/8"-1 1/2	Fillet: Unlimited	Number of electrodes: Single		
Diameter (Pipe): 4" Minimum		Electrode Spacing:	Longitudinal: N/A	
FILLER METALS			Lateral: N/A	
AWS Specification. A5.1 -A5.5			Angle: N/A	
AWS Classification: E7018		Contact Tube to Work Distance: N/A		
SHIELDING		Peening: Recommended		
Flux:	Gas: N/A	Interpass Cleaning: Mechanical Only		
	Composition: N/A	**POSTWELD HEAT TREATMENT**		
Electrode-Flux (Class)	Flow Rate: N/A	Temp.: N/A		
	Gas Cup Size: N/A	Time: N/A		
PREHEAT				
Preheat Temp. Min.: 100°F				
Interpass Temp., Min.: 100°F	Max.: 500°F			

WELDING PROCEDURE

Pass or Weld Layer(s)	Process	Filler Metals		Current		Volts	Travel Speed	Joint Details
		Class	Diam.	Type & Polarity	(Amps) or Wire Feed Speed			See Attached And AWS D1.1
All	SMAW	E7018	3/32"	DCEP	70-110	19-22	As Required	
All	SMAW	E7018	1/8"	DCEP	90-150	20-24		
All	SMAW	E7018	5/32"	DCEP	120-190	20-24		

WELDING PROCEDURE SPECIFICATION (WPS) Yes (X)
PREQUALIFIED (X) QUALIFIED BY TESTING ( ) or PROCEDURE
QUALIFICATION RECORD (PQR) Yes ( )

FCAW		Identification #: PMFC-1		
		Revision 0 Date: 2/1/00		By: PI
Company Name: Premier Manufacturing Co.		Authorized By:		Date:
Welding Process(es): FCAW		Type: Manual: (X)		Semi-Automatic:
Supporting PQR No.(s): N/A (Pre-Qualified)		Machine:		Automatic:
JOINT DESIGN USED		**POSITION**		
Type: All Fillets-Butts (See Attached)		Position of Groove: All		Fillet: All
Single (X)	Double Weld (X)	Vertical Progression: Up (X)		Down ( )
Backing: Yes (X)	No(X)	**ELECTRICAL CHARACTERISTICS**		
Backing Material: M1-P1-S1, Group 1 &2		Transfer Mode (GMAW) short-circuiting ( )		
Root Opening: ---	Root Face Dimension: ---	Globular (X) Spray (X)		
Groove Angle: ---	Radius (J-U): ---	Current: AC ( ) DCEP(X) DCEN ( ) Pulsed ( )		
Back Gouging: Yes (X) No (X) Method: Mech/Thermal		Other:		
BASE METALS		**TECHNIQUE**		
Material Spec.: M1-P1-S1 1026 Carbon Steel		Stringer or Weave Bead: String and Weave		
Type or Grade: Group 1 and 2		Multi-Pass or Single Pass (per side): Multiple/Single		
Thickness: Groove: 1/8"-1 1/2"	Fillet: Unlimited	Number of electrodes: Single		
Diameter (Pipe): 4" Minimum		Electrode Spacing:	Longitudinal: N/A	
FILLER METALS			Lateral: N/A	
AWS Specification: A5.20			Angle: N/A	
AWS Classification: E70T-1/E71T-1		Contact Tube to Work Distance: 3/4" ±1/4"		
SHIELDING		Peening: Recommended		
Flux:	Gas: CO^2	Interpass Cleaning: Mechanical Only		
	Composition: 100%	**POSTWELD HEAT TREATMENT**		
Electrode-Flux (Class)	Flow Rate: 30-50 cfh	Temp.: N/A		
	Gas Cup Size: 1/2" Dia. Min.	Time: N/A		
PREHEAT				
Preheat Temp.: Min.: 100°F				
InterpassTemp.: Min. 100°F	Max.: 500°F			

WELDING PROCEDURE

Pass or Weld Layer(s)	Process	Filler Metals		Current		Volts	Travel Speed	Joint Details
		Class	Diam.	Type& Polarity	(Amps) or Wire Feed Speed			See Attached And AWS D1.1
All	FCAW	E70T-1	0.045	DCEP	180-280	24-28	As Required	
All	FCAW	E71T-1	0.052	DCEP	190-300	24-29		
All	FCAW		0.068	DCEP	210-350	24-29		
All	FCAW		5/64"	DCEP	250-400	26-30		