PREMIER MANUFACTURING CO.

THE FIRST NAME IN QUALITY COUPLINGS

# Installation, Inspection, Operation & Maintenance Guide

# Model 123 Weld-On Adjustable Drawbar Eye

## IMPORTANT

**Read these instructions completely before installing, using or attempting to repair this product. If you have any questions, call Premier at (800) 255-5387 or (503) 234-9202.**

# Selecting The Right Equipment

Whatever your application, selecting the proper equipment for the job is very important. Proper selection along with regular inspection and maintenance will help keep operating costs minimal while providing long life to each component. Below are general guidelines for selecting Premier Couplings and Drawbar Eyes. If you feel that your application is unique, please give Premier a call so that we may help you through the selection process.

Follow these four steps to ensure proper selection of Premier Couplings and Drawbar Eyes.

**Step 1:**
**Determine "Gross Trailer(s) Weight"**
(GVWR(s) of towed trailers)
→
**Step 2:**
**Determine "Tongue Weight Capacity"**
(Maximum occurring tongue weight)
→
**Step 3:**
**Add Margin of Safety**
(Dependent upon your equipment and operating environment)
→
**Step 4:**
**Browse Premier Product Catalog**
(Based on Steps 1 - 3)

## Step 1: Determine "Gross Trailer(s) Weight"

"Gross Trailer(s) Weight" is usually determined by the Gross Vehicle Weight Rating (GVWR). This information is attached to the trailer by the trailer manufacturer.

**Double Trailer Configuration**


Example only, each application may vary and should be considered unique.

For "Double Trailer" configurations, only the rear trailer is considered when selecting your Premier Coupling or Drawbar Eye. In this example, a Coupling and Drawbar Eye with a "Gross Trailer Weight" rating of 40,000 lbs. (18,143 kg) would be the minimum rating acceptable for normal, over-the-road applications (see Tongue Weight section below).

**Triple Trailer Configuration**


Example only, each application may vary and should be considered unique.

For "Triple Trailers", only the two most rearward trailers are considered in selecting your Premier Coupling or Drawbar Eye. In this example, a Coupling and Drawbar Eye with a "Gross Trailer Weight" rating of 80,000 lbs. (36,287 kg) would be the minimum acceptable for normal, over-the-road applications (see Tongue Weight section below).

## Step 2: Determine "Tongue Weight Capacity"

**"Tongue Weight Capacity"** is the maximum expected weight at the drawbar eye. If a hinged drawbar is used, the maximum weight will be approximately 1/2 the overall drawbar weight. If a non-hinged drawbar is used and the actual tongue weight is not known, you can approximate the weight by multiplying the GVWR of the towed trailer by 15%. However, each application is unique and the best practice is to weigh the tongue when the trailer is loaded to its GVWR.

## Step 3: Considering Operating Conditions and Environments

Environments such as rough uneven roads or off-road use can dramatically increase shock loads to both drawbar eyes and couplings. In general, increasing the "Gross Trailer Weight" (Step 1:) and "Tongue Weight Capacity" (Step 2:) by a minimum of 25% will be sufficient for many applications. Even if an application is used off-road occasionally, the minimum increase necessary for Gross Trailer and Tongue Weight is 25%. Certain types of equipment and/or operating practices can also dramatically increase loads through equipment binding and/or improper loading practices. Of special concern is high tongue weight. However, each application is unique and every environment different, therefore your application may require more than 25%.

Once both "Gross Trailers(s) Weight" (Step 1:) and "Tongue Weight Capacity" (Step 2:) have been determined, evaluate your operating conditions and apply an appropriate margin of safety.

## Step 4: Browse Premier Product Catalog

Browse the Premier Product Catalog and refer to the "Specifications" section of each product. Be sure to review the "Understanding Premier Load Specifications" section and "Coupling to Drawbar Eye Cross-Reference" sheet on the next couple pages.

# Selecting The Right Equipment

## Understanding Premier Load Specifications

Each Premier product undergoes extensive design and testing prior to being introduced. We use the latest in Computer Aided Design and Analysis Software as well as physical destructive tests. Premier's published load specifications are the maximum load a given product or part will withstand without failure. Premier's testing procedures closely follow the Society of Automotive Engineers (SAE) guidelines of Recommended Practice for testing Couplings and Drawbar Eyes (SAE J847 & J849).

Weight of Trailer(s) being towed (see "Selecting Premier Couplings & Drawbar Eyes").

Maximum occurring tongue weight. Static as well as dynamic loads.

Maximum load on latch or upper coupling surface containing drawbar eye. Latches and upper coupling surfaces are not designed for sustained load at this stated capacity.

The largest x-section in eyelet portion of eye. Used to determine compatibility with coupling.

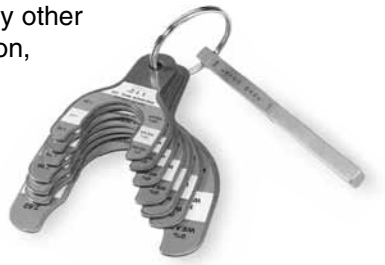
Minimum inside diameter of eyelet portion of eye. Used to determine compatibility with coupling.

Weight of unit or pair of units without accessories.

| | | |
|---|---|---|
| **Maximum Gross Trailer Weight:** | 30,000 lbs. | (13,607 kg) |
| **Maximum Tongue Weight:** | 4,500 lbs. | (2,041 kg) |
| **Ultimate Latch/Upward Vertical Capacity:** | 5,000 lbs. | (2,267 kg) |
| **Maximum Eye X-Section:** | 1 13/16 in. | (46 mm) |
| **Minimum Eye Opening:** | 2 in. | (51 mm) |
| **Unit Weight:** | 12.6 lbs. | (5.7 kg) |



## Importance of Inspection and Maintenance



Whether you use Premier Jacks, Couplings, Drawbar Eyes, Hinge Assemblies or any other Premier product, regular inspection and maintenance are essential for proper function, keeping repair costs to a minimum and above all, safe and efficient operation.

To determine wear limits, Premier created Wear Gages that help judge the useful life of couplings and drawbar eyes (details in catalog). In accordance with Premier and the Federal Motor Carrier Safety Regulations, these were designed to identify wear at the critical percentages of 18% and 20%, by measuring the cross-section of coupling hooks (horn) and drawbar eye loops. 18% wear indicates that the product should be replaced as soon as possible. At 20% wear, the product is no longer in usable condition and must be taken out of service immediately and replaced. The latch gage bar measures the gap space between the top of the coupling hook and the closed latch. If the 3/8" latch gage bar can pass between this region, then the latch components should be considered worn past safe limits and replaced. Please note that these wear gage specifications are in accordance with Premier Mfg. Co. and the Federal Motor Carrier Safety Regulations (refer to other manufacturer's specifications for wear limits on their products).

Premier also provides Installation Guides for each of our major products. These help guide you through installation, inspection, routine maintenance and part replacement. Another resource is our website at **www.premier-mfg.com**. Here you will find Installation Guides, Service Guides, distributor locations, online catalogs, product information, trade show schedules and links to trucking resources.

## "Premalloy" - Premier's Exclusive Alloy

PREMALLOY®
"The Harder You Work It, The Harder It Gets"

**"The harder you work it, the harder it gets"** best describes how Premalloy performs. Premalloy actually work hardens at the contact surfaces during normal use, which results in longer service life. Premalloy is highly recommended for off-road and aggregate type applications due to its wear resistant characteristics. Many of Premier's couplings are made from this exclusive material. As you are browsing the catalog, look for the Premalloy icon next to the product photos to determine which models are made of this material.

## Coupling to Drawbar Eye Cross Reference Chart

| Couplings | Drawbar Eyes | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2* | 3 | 4 | 5 | 6/6A | 8 | 11 | 20 | 21 | 22 | 23 | 107 | 108 | 110 | 123 | 125 | 126 | 127 | 200 | 200L | 203 | 205 | 207 | 238DB† | 245DB† | 245DB-3† | 300 | 304 | 305 | 306 | 307 | 309 | 405 | 407SE | 410 |
| 16 | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| 24 | ● | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 40 | ● | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 100† | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | ● | ● | ● | ● | ● | ● | ● | ● |
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| 140 | ● | ● | | | | | ● | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 150 | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
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| 235NT | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | ● | ● | ● | ● | ● | ● | | | ● | | | | | | | |
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| 360 | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| 370 | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
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| 690/690T | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
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| 880 | | | | | | | | | | | | | | | | | | | | | | | | ● | | ● | ● | ● | ● | ● | ● | ● | | | | | | | |
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**† Saf-Tite Product**

*** Industrial Application**

**CAUTION:** Verify that both the coupling's and drawbar eye's rated capacities meet your application(s) requirements.

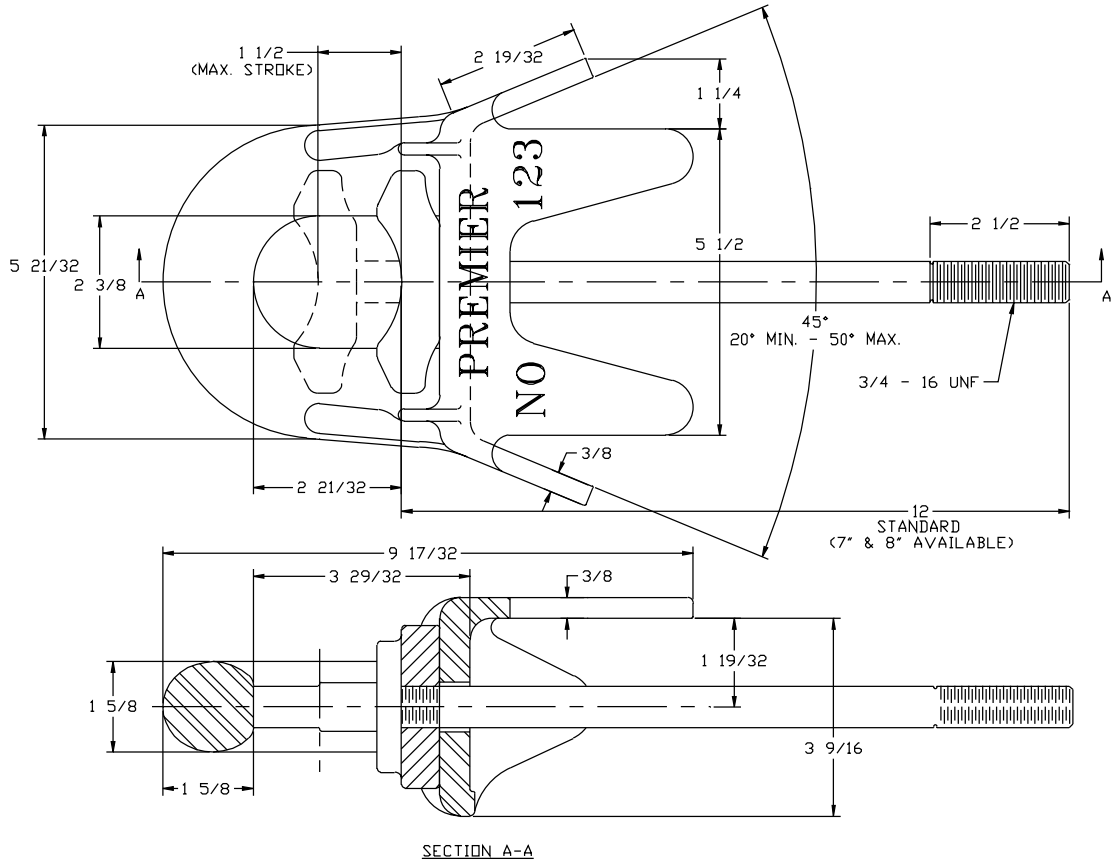
# Model 123 Weld-On Adjustable Drawbar Eye

## SPECIFICATIONS AND LOAD CAPACITIES

SAFETY WARNING
This product is designed for towing under normal conditions within the stated gross trailer weight. Do not overload or abuse this product. Overloading or abuse may lead to property damage, severe injury, or death.

| | | |
|---|---|---|
| **Max. Gross Trailer Weight:** | 100,000 lbs. | (45,359 kg) |
| **Maximum Tongue Weight:** | 15,000 lbs. | (6,803 kg) |
| **Inside Diameter:** | 2 3/8 in. | (60 mm) |
| **Unit Weight:** | 15.6 lbs. | (7.1 kg) |

## STANDARD INSTALLATION DRAWING




## PARTS

**Parts Included**:

- 123 Drawbar Eye
- 411 Shoe
- Choice of Pushrod length

**Pushrod Lengths**:

- 113: 12 in. (305 mm)
- 113A: 8 in. (203 mm)
- 113B: 7 in. (178 mm)

3/4 in. - 16 NF thread on all rods

## ACCESSORIES

**Optional Accessories**:

- Type 281 or 282 Air Chamber, or Premier model 500 Mechanical Slack Adjuster
- 47 Series Couplers
- 525 Jam Nut (fits 113 Pushrod) or 281J Jam Nut (fits 281 & 282 Air Chamber Pushrod)
- 14005 (1 5/8") Wear Gage. Used to determine if the eye has worn beyond its intended service life.

## INSTALLATION

**Installation Procedure**:

1. The 123 Drawbar Eye must be installed to comply with the Federal Motor Carrier Safety Regulations. Specifically, Section 393.70, Paragraph C: "Towing of Full Trailers." Prior to install or operation, consult with local, State and Federal agencies, as there may be additional applicable laws governing installation and use of this product.
2. One of the three attached Welding Procedure Specifications; GMAW, SMAW or FCAW, must be followed. Welding should only be performed by a certified welder skilled in structural welding practices.
3. All weld locations must be clean, paint free and void of any moisture, oil, grease, oxides or loose or thick scale.
4. The 123 Drawbar Eye is designed for a front end structure consisting of two 3" square tubes, or channel. The two side weld tabs may be heated and then spread or collapsed to accommodate front end geometries with angles ranging from 20° to 50° (see Figure 1).
5. Fit-up, between the front end structure and the mounting surfaces of the 123 Drawbar Eye, must be flush as failure to have a flush fit prior to welding will cause the capacities to be negatively affected. Figures 1A and 1B show possible examples of an improper fit-up that must be avoided.
6. Attach the 123 Drawbar Eye to the front end structure with a minimum 3/8" fillet weld that encompasses the entire interface between the drawbar eye and front end structure as shown in Figure 2 and in the bottom view of Figure 1.
7. Push the 411 Shoe to the retracted position (see Figure 2) and then couple the 113-series Pushrod to the 281 or 282 Air Chamber (not included) using a 47-series Coupler (not included). Make certain that the 281J Jam Nut (not included) is threaded far enough down the air chamber pushrod so it will not interfere with the coupler.
8. Adjust the 47 Coupler so the 411 Shoe is fully retracted when no air is being supplied to the air chamber.
9. Connect the air chamber to the EMERGENCY SIDE AIR SUPPLY.
10. WARNING! KEEP HANDS CLEAR OF THE DRAWBAR EYE DURING THIS TEST! Test the operation of the 411 Shoe by charging the emergency side air supply. The shoe should project fully forward.
11. If the 411 Shoe does not move, verify that the air chamber has been connected to the emergency side and not the service side of the air supply.
12. If the 411 Shoe only partially projects forward, adjust the 47 Coupler and retest. The shoe must project forward until it is stopped by the interior loop of the 123 Drawbar Eye (approximately a 1 ½" stroke. See Standard Installation Drawing). Make certain that when the emergency side air supply is off, the shoe returns all the way to the fully retracted position.
13. Tighten the 281J Jam Nut against the 47 Coupler, securing the connection between the 113 Pushrod and the air chamber pushrod.
14. If using a 500 Slack Adjuster in place of an air chamber, contact Premier for specific Installation Instructions.
15. "IMPORTANT WARNINGS!" sticker was enclosed. This must be attached to the front end, adjacent to the drawbar eye, visible for the end user to read.

# Model 123 Weld-On Adjustable Drawbar Eye

## INSTALLATION

**Figure 1**

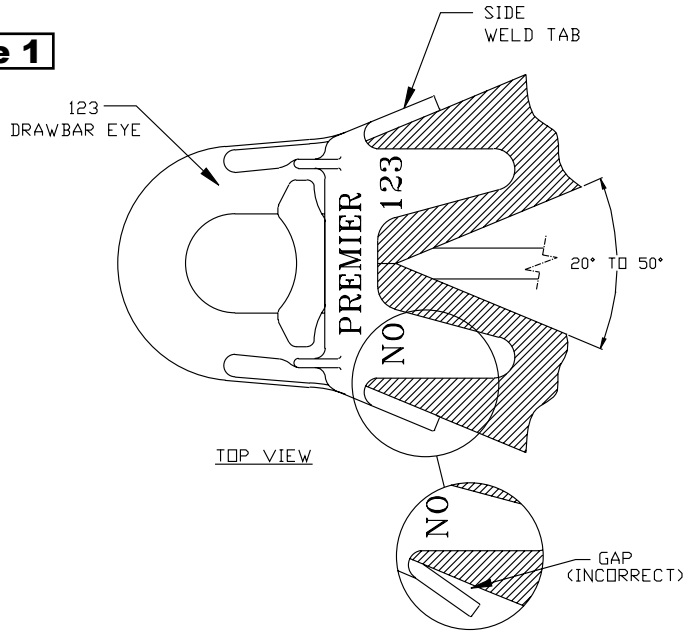



FIG. 1A

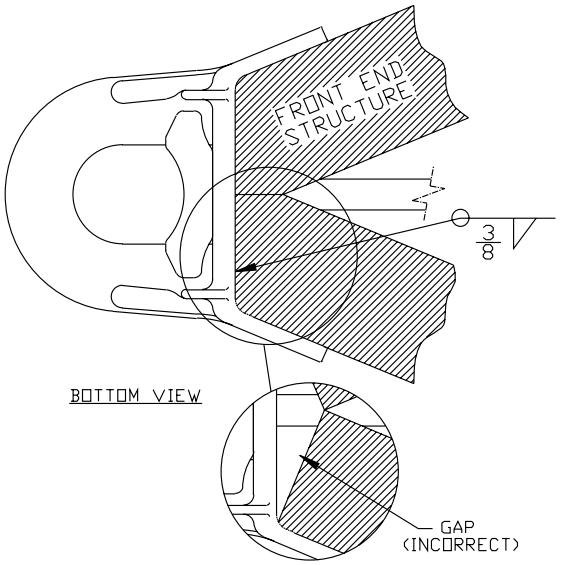
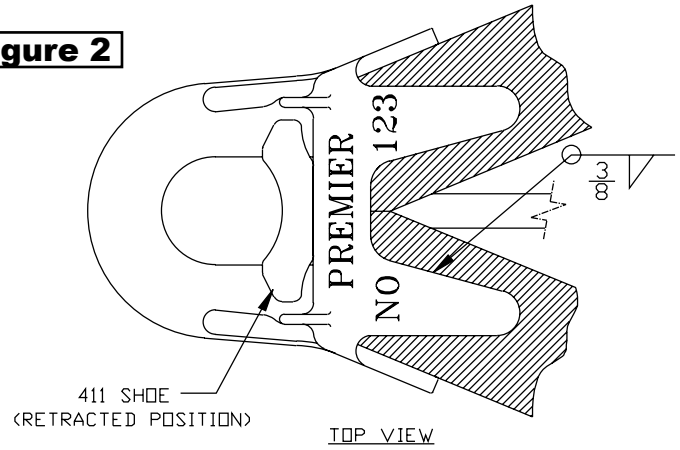
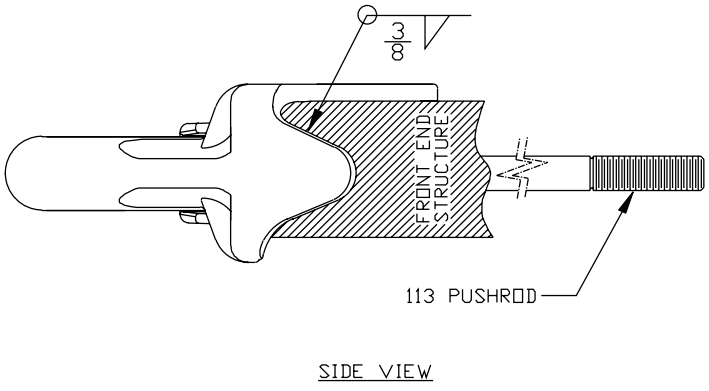



FIG. 1B

**Figure 2**




## INSPECTION / OPERATION / MAINTENANCE

1. Visually inspect the drawbar eye for cracks, impact damage and/or deformation before each and every use. Do NOT use if any of these conditions exist.
2. If the original cross-section of the eye loop has been reduced by 20% or greater, the drawbar eye is NOT to be used and is considered out-of-service.
3. This product is designed to be operated within its free rotation limits. It is the responsibility of the vehicle designer/end user to assure that these limits are not exceeded (not binding/ jackknife).
4. WARNING: Prior to towing, make certain that adequately rated safety chains have been properly connected.
5. Never weld on any Premier drawbar eye in order to repair damaged or worn areas. Field and/or shop weld repairs are inadequate and may further weaken the drawbar eye.

**IMPORTANT GUIDELINES that apply to all Premier Weld-On Drawbar Eyes**

- Never attempt weld repair of damaged or worn drawbar eyes
- Air adjusted drawbar eyes must be used with an air service chamber or #500 slack adjuster
- Clean and inspect drawbar eyes and eye assemblies for damage or excessive wear before each and every use
- Structure to which eye is attached must be of sufficient strength to withstand load rating of eye
- All welds for attaching eye should be done by a certified welder skilled in structural welding
- Do not bind-up (Jackknife) any application as stresses can cause damage to products or components, resulting in failure and detachment of the trailer while in use
- Do not apply lubricants to the coupling hook or drawbar eye loop, as they can cover up possible damage and accelerate wear

# Model 123 Weld-On Adjustable Drawbar Eye

## 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 | | | |
| All | GMAW | E70S-X | 0.035 | DCEP | 190-230 | 22-31 | 13 ±1 IPM | See Attached |
| 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 | | | |
| All | SMAW | E7018 | 3/32" | DCEP | 70-110 | 19-22 | As Required | See Attached And AWS D1.1 |
| 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 | | | |
| All | FCAW | E70T-1 | 0.045 | DCEP | 180-280 | 24-28 | As Required | See Attached And AWS D1.1 |
| 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 | | |

# ATTENTION !

## End Users must read and follow this information.

## DISTRIBUTORS & OEM'S: Please ensure that your customers are made aware of the following information on this page.

**(1) VERIFY THAT BOTH COUPLING'S AND DRAWBAR EYE'S RATED CAPACITIES MEET YOUR APPLICATION(S) REQUIREMENTS.**

(2) DO NOT OVERLOAD COUPLING OR DRAWBAR EYE.

(3) INSPECT COUPLING, LATCH AND DRAWBAR EYE FOR CRACKS, BENDING DAMAGE OR EXCESSIVE WEAR. **DO NOT USE IF ANY OF THESE CONDITIONS EXIST!**

(4) CHECK FOR GAP BETWEEN CLOSED LATCH AND TOP OF HORN OR COUPLING BALL. **DO NOT USE IF GAP IS 3/8 IN. OR MORE.**

(5) MAKE SURE COUPLING IS LATCHED AND THAT LATCH WILL NOT OPEN.

(6) PRIOR TO USE, ALWAYS CONNECT SAFETY CHAINS OF ADEQUATE STRENGTH FOR LOAD(S) BEING TOWED.

(7) DO NOT BIND-UP (JACKKNIFE) ANY APPLICATION AS STRESSES CAN CAUSE DAMAGE TO THE COUPLING, DRAWBAR EYE, OTHER COMPONENTS OR ANY COMBINATION OF THEM. JACKKNIFING MAY RESULT IN FAILURE OF PRODUCTS OR COMPONENTS, RESULTING IN DETACHMENT OF THE TRAILER WHILE IN USE.

(8) DO NOT APPLY LUBRICANTS TO THE COUPLING HOOK OR DRAWBAR EYE LOOP, AS THEY CAN COVER UP POSSIBLE DAMAGE AND ACCELERATE WEAR.

(9) ALWAYS ABIDE BY ALL APPLICABLE STATE AND FEDERAL REGULATIONS GOVERNING SAFE AND PROPER TRANSPORTATION.

(10) NEVER STRIKE ANY OF THESE COMPONENTS WITH A HAMMER OR ANY OTHER DEVICE.

(11) ALWAYS VERIFY PROPER OPERATION OF LATCHING SYSTEM AND COUPLING COMPONENTS PRIOR TO DRIVE OFF.

(12) NEVER USE A COUPLING THAT YOU DO NOT FULLY UNDERSTAND HOW TO PROPERLY OPERATE AND VERIFY SECURE LATCHING OF.

**(13) NEVER REPLACE ANY PART IN ANY OF PREMIER'S ASSEMBLIES WITH NON-PREMIER COMPONENTS. DOING SO WILL VOID ALL WARRANTY AND POTENTIALLY COMPROMISE THE UNIT'S INTEGRITY, WHICH COULD RESULT IN PROPERTY DAMAGE, SERIOUS INJURY, OR DEATH.**

**WARNING!**

This envelope contains important instructions AND MUST REMAIN ATTACHED TO THIS DRAWBAR EYE. It may be removed only by the End User or by an Original Equipment Manufacturer who preserves this envelope and instructions and provides it to the end user.

PREMIER MANUFACTURING COMPANY
**THE FIRST NAME IN QUALITY COUPLINGS**
**800-255-5387 (503) 234-9202**
**www.premier-mfg.com**

Model 123 Weld-On Drawbar Eye Installation, etc.
**Revised: 04/09**

**WARRANTY:** We warrant all Premier products to be free from defects in material or workmanship for one year. We will repair or replace, at our option, any Premier product which our examination reveals to be defective, provided that the product is returned to our factory, at Tualatin, Oregon transportation prepaid, within one year of purchase by the first retail purchaser. Our warranty does not extend to products which have been subject to misuse, neglect, improper installation, maintenance or application, nor does our warranty extend to products which have been repaired or altered outside of Premier's facility unless the repair or alteration has been expressly authorized in writing by Premier. ***This warranty is in lieu of all other warranties, express or implied, and excludes warranties of merchantability, fitness for a particular purpose and otherwise, and in no event will Premier be liable for incidental, special, contingent or consequential damages.***

**DISCLAIMER:** Although great care has been taken to ensure accurate information throughout this document, Premier Manufacturing Company must reserve the right to alter any information contained within. These changes include but are not limited to: Dimensional changes, load capacity and availability of any part or assembly.