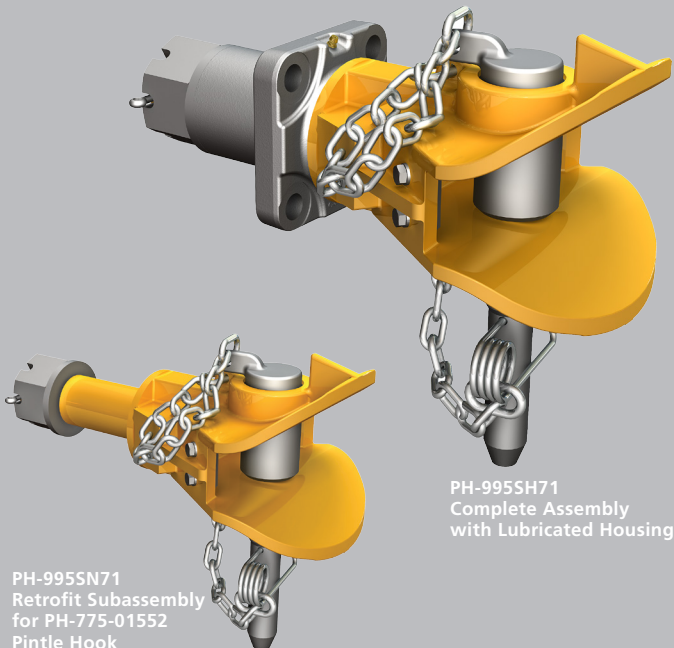


Owner's Manual

PH-995 Pin and Clevis Coupler

Installation, Operation, and Maintenance Procedures

- Swivel Mount
- Non-cushioned
- Maximum GTW: 100,000 lb. (45,360 kg)
- Maximum Vertical Load: 20,000 lb. (9,072 kg)
- Weight (Approx.):
 - 97 lb. (44 kg) Complete Assembly
 - 79 lb. (36 kg) Retrofit Subassembly for PH-775-01522



PH-995SN71
Retrofit Subassembly
for PH-775-01522
Pintle Hook

PH-995SH71
Complete Assembly
with Lubricated Housing

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Introduction

This manual provides information necessary for the proper mounting, operation, maintenance, and inspection of the SAF HOLLAND® coupler.

NOTE: For Holland replacement components contact SAF-HOLLAND Customer Service: 888-396-6501.

Warranty

This product is covered by SAF-HOLLAND’s Coupling Products Commercial Warranty. Refer to the complete warranty for the country in which the product will be used. A copy of the written warranty can be downloaded from our SAF-HOLLAND website (www.safholland.us).

Notes, Cautions, and Warnings

You must read and understand all of the procedures presented in this manual before starting any work on the pintle hook.

NOTE: In the United States, work shop safety requirements are defined by federal and/or state Occupational Safety and Health Act. Equivalent laws may exist in other countries. This manual is written based on the assumption that OSHA or other applicable employee safety regulations are followed by the location where work is performed.

Proper tools must be used to perform the mounting and maintenance procedures described in this manual.

Throughout this manual, you will notice the terms “NOTE”, “IMPORTANT”, “CAUTION”, and “WARNING” followed by important product information. So that you may better understand the manual, those terms are as follows:

NOTE: Includes additional information to enable accurate and easy performance of procedures.

IMPORTANT: Includes additional information that if not followed could lead to hindered product performance.

CAUTION Used without the safety alert symbol, indicates a potentially hazardous situation which, if not avoided, could result in property damage.

CAUTION Indicates a potentially hazardous situation which, if not avoided, could result in minor or moderate injury.

WARNING Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

Important Safety Instructions

IMPORTANT: Read this manual before using this product. Keep this manual in a safe location for future reference.

⚠ WARNING Failure to follow the instructions and safety precautions in this manual can result in equipment failure which, if not avoided, could result in death or serious injury.

For rigid trailer tongue, maintain adequate vertical (tongue) load to adequately control the trailer (generally 10% of the gross vehicle weight) but do not exceed the capacity ratings listed in Section 2, page 6.

The equipment listed in this manual must not be used or maintained in a careless manner.

During Operation:

1. Be sure that the drawbar eye is compatible with the coupling device on the tow vehicle.
2. Be particularly careful during coupling and uncoupling.
3. Inspect the coupling device on the tow vehicle for proper operation. DO NOT use any coupling device that does not operate properly.
4. Other steps and inspections are also required. Consult local, regional, or national regulations for complete coupling and uncoupling procedures. These cover items such as cargo securement, brakes, lights, safety chains, and other important requirements.

General Information:

1. DO NOT modify or add to these products.

⚠ CAUTION DO NOT hit steel parts with a steel hammer as parts could break, sending flying steel fragments in any direction creating a hazard which, if not avoided, could result in minor to moderate injury.

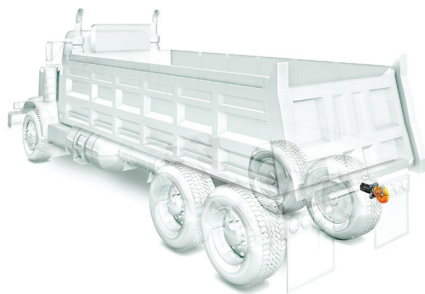
2. DO NOT weld on these products.
3. All mounting torque specifications listed in this manual are based on zinc plated Grade 8 fasteners in dry applications. For any other application see the bolt manufacturer's recommendations.

IMPORTANT: Bolts must be long enough to provide a minimum of two (2) full thread lengths beyond the end of the nut.

⚠ WARNING Failure to use long enough bolts for mounting the coupler could result in vehicle and trailer separation which, if not avoided, could result in death or serious injury.

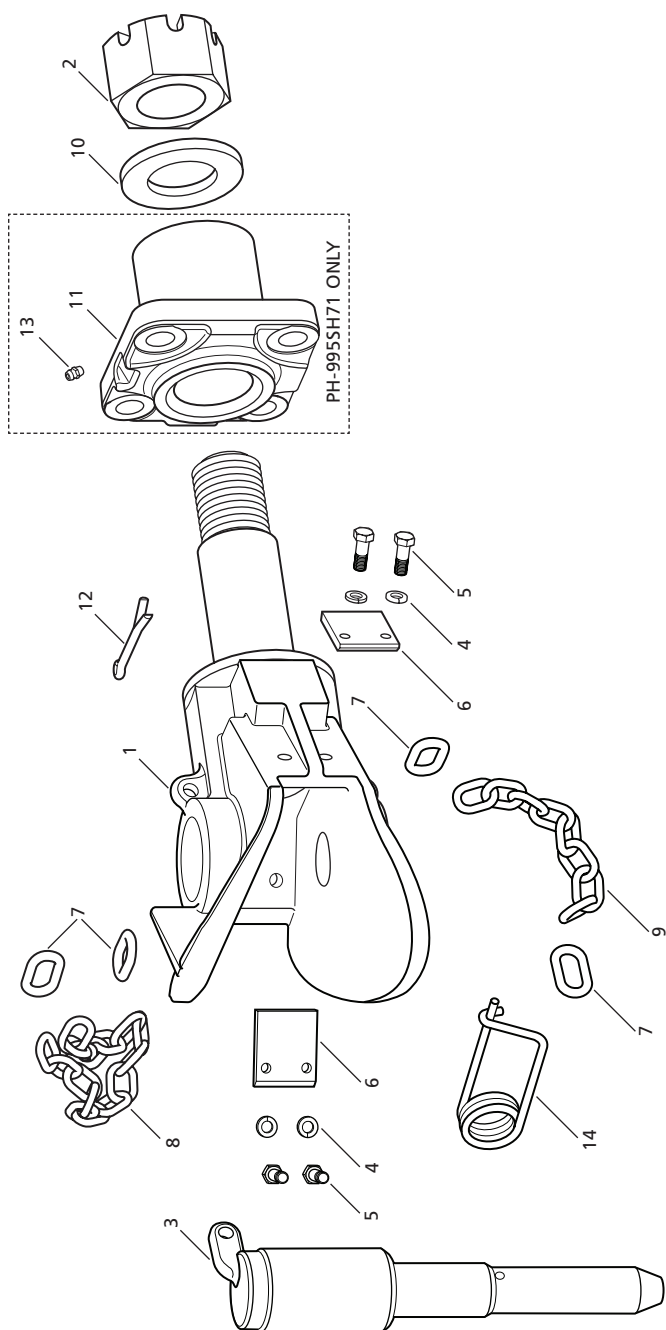
NOTE: In this manual, all descriptions of orientation are relative to the vehicle, see image below.

Front



Rear

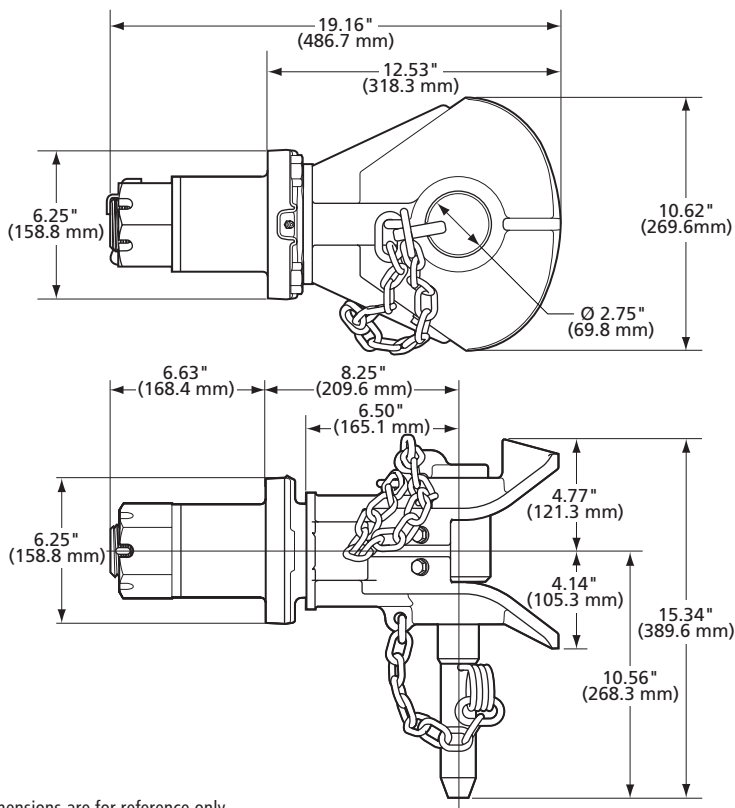
PH-775SLII Shown



ITEM	PART NUMBER	QTY.	DESCRIPTION
1	XA-11552	1	Hook, Pintle or "Fishmouth Body"
2	XB-780-1	1	Nut, Heavy Hex Slotted, 2-1/4" - 4-1/2" or "Castellated Nut"
3	XA-10287	1	Pin, Clevis
4	XB-T-61	4	Washer, Lock 3/8"
5	XB-10738	4	HHCS, 3/8" - 16 x 1-1/8" LG
6	XA-10008	2	Plate, Wear
7	XB-T-993-1	4	Link, Connecting
8	XB-T-992	1	Chain, 16 Link

ITEM	PART NUMBER	QTY.	DESCRIPTION
9	XB-TLN-1000-7	1	Chain, Eight (8) Link
10	XA-782	1	Washer
11	XA-749-1	1	Sleeve or "Housing" PH-995SH71 Only
12	XB-781-1	1	Pin, Cotter 5/16" x 3-1/2"
13	XB-767	1	Fitting, Lube PH-995SH71 Only
14	XB-0437	1	Pin Safety

Note: Not all component parts are for sale individually. For rebuild kits see Section 9, page 17. For individual component parts contact SAF-HOLLAND Customer Service: 888-396-6501.



Note: Dimensions are for reference only.

1. Drawbar Eye Dimensions

Use only with a 3" (76 mm) I.D and 1.63" (41.3 mm) diameter cross section.

2. Load Ratings

Over-The-Road Applications

Maximum GTW: 100,000 lb. (45,360 kg)

Max. Vertical Load: 20,000 lb. (9,072 kg)

This product can be used in higher GTW applications with written permission from SAF-HOLLAND Engineering. Please contact SAF-HOLLAND Customer Service at (888) 396-6501 for details.

3. Towing Applications

For use with rigid mount drawbars only.

IMPORTANT: Off-road refers to terrain on which a tractor-trailer operates which is unpaved and rough, or ungraded. Any terrain not considered part of the system of public roads falls under this heading.

4. Installation Options

The PH-995 coupler is available in two (2) models:

PH-995SH71

Complete assembly including lubricated housing (**Figure 1**).

PH-995SN71

Sub-assembly for retrofit of HOLLAND PH-775-01552 pintle hook (**Figure 2**).

Each model requires a different installation procedure described in the following sections. Be sure to verify model before beginning installation.

Figure 1

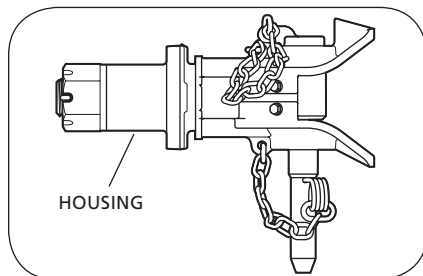
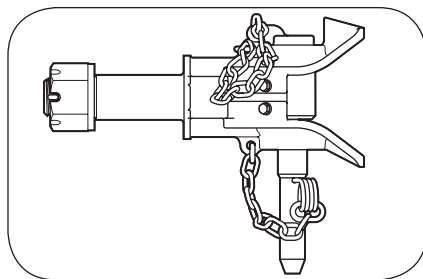


Figure 2



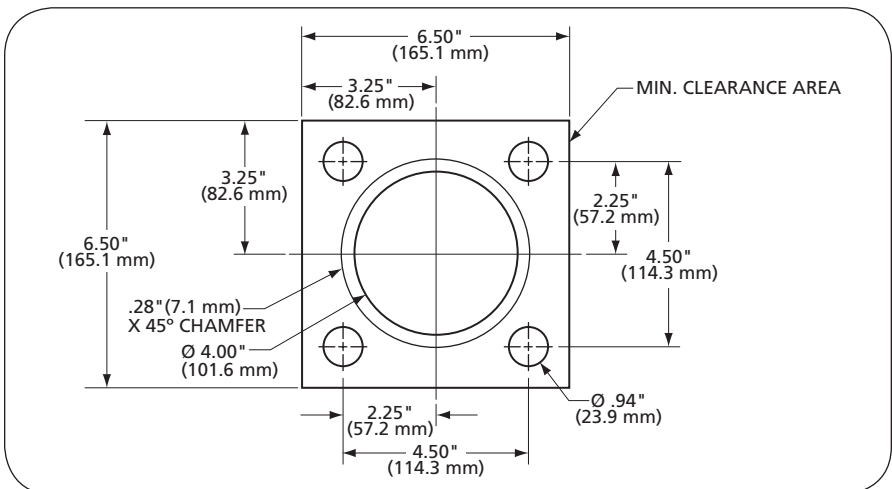
5. PH-995SH71 – Complete Assembly Installation

Before installation make sure that the mounting structure is of sufficient strength to support the rated capacities of the coupler. Refer to SAE J847 for structural performance requirements.

NOTE: Due to weight of the complete assembly, lifting and installing may require two installers.

1. Install the housing flange to a flat mounting surface using the bolt hole pattern as specified (**Figure 3**).

Figure 3



2. Installation methods:

a. Thru-bolt to the mounting structure:

Insert and tighten four (4) new 7/8" diameter Grade 8 bolts, ASTM Grade C lock nuts, and hardened washers. Torque to 400 ft.-lbs. (543 N•m) **(Figure 4).**

b. Direct bolt to drilled and tapped mounting structure:

Apply nonpermanent thread lock compound Loctite #242 or equivalent to four (4) new 7/8" diameter Grade 8 bolts. Insert and torque to 400 ft.-lbs. (543 N•m) **(Figure 5 and 6).**

3. Grease the housing using the grease fitting. Wipe away excess grease to avoid attracting debris.

4. The "fishmouth" body should rotate freely by hand with a maximum gap of .04" (1.0 mm) between the rear mounting flange and coupler **(Figure 7).**

Figure 4

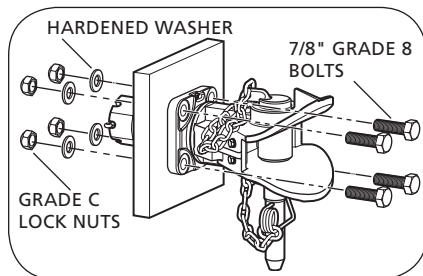


Figure 5

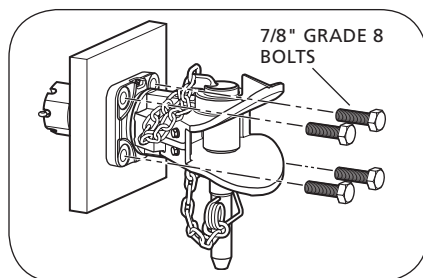


Figure 6

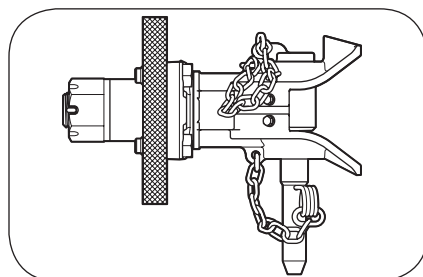
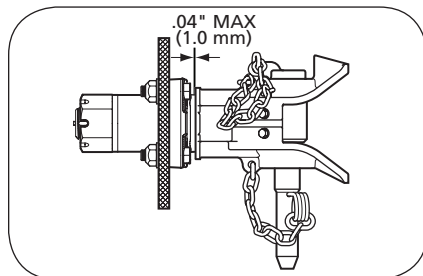


Figure 7



6. PH-995SN71 Installation (Retrofit of PH-775-01552)

Before installation make sure that the mounting structure is of sufficient strength to support the rated capacities of the coupler. Refer to SAE J847 for structural performance requirements.

Removal of the PH-775-01552 coupler:

1. Remove the cotter pin (XB-781-1) from the castellated nut (XB-780-1) (**Figure 8**). Discard the used cotter pin.
2. While holding and supporting the pintle hook body remove the castellated nut (XB-780-1) (**Figure 9**). Discard the used castellated nut.
3. While holding and supporting the pintle hook body remove the washer (XA-782) (**Figure 10**). Discard the used washer.
4. Remove the pintle hook body from the housing (XA-749 or XA-749-1) by pulling it straight out of the housing (**Figure 11**). Set aside the used pintle hook body.

NOTE: Use new installation hardware with supplied PH-995SN71.

Figure 8

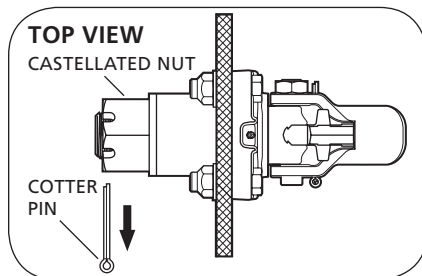


Figure 9

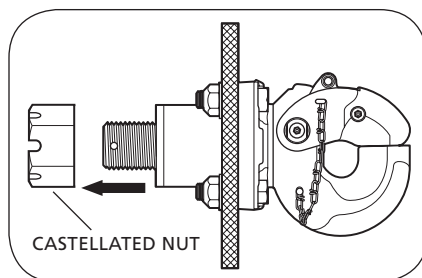


Figure 10

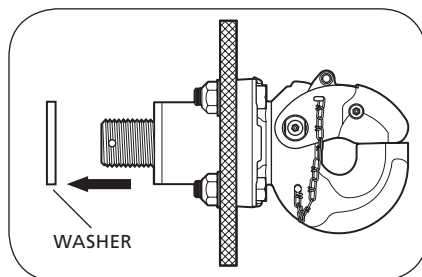
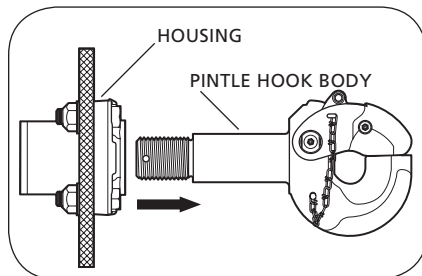


Figure 11



5. Clean the interior of the housing then wipe dry with a clean rag. Inspect for cracks or damage. If cracked or damaged obtain and install a new housing (XA-749 or XA-749-1) before proceeding. See Parts List, page 5.
6. Check mounting bolt torque:
 - a. Thru-bolt to the mounting structure:

Tighten four (4) 7/8" diameter Grade 8 bolts, ASTM Grade C lock nuts, and hardened washers. Torque to 400 ft.-lbs. (543 N•m) **(Figure 12).**
 - b. Direct bolt to drilled and tapped mounting structure:

Tighten four (4) 7/8" diameter Grade 8 bolts and torque to 400 ft.-lbs. (543 N•m) **(Figure 13).**

Prepare the new PH-995SN71 sub-assembly:

7. Remove and retain the cotter pin (XB-781-1) **(Figure 14).**
8. Remove and retain the castellated nut (XB-780-1) **(Figure 15).**

Figure 12

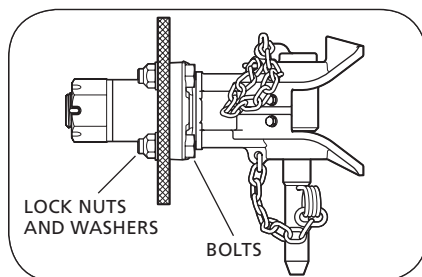


Figure 13

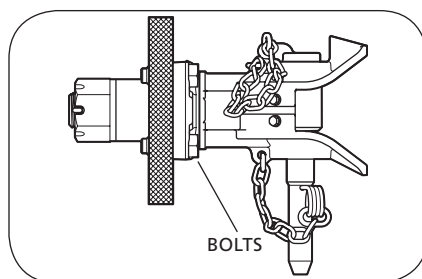


Figure 14

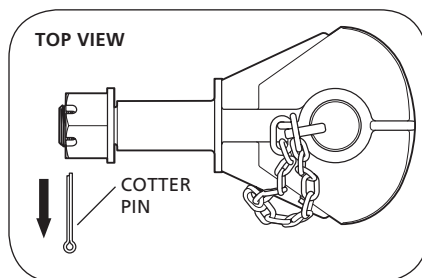
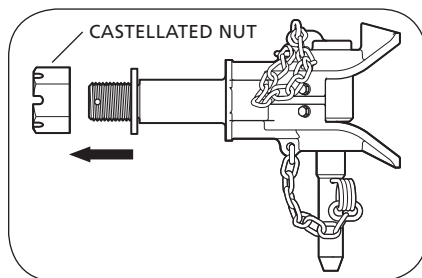


Figure 15



9. Remove and retain the washer (XA-782) (**Figure 16**).

Install the new PH-995SN71 sub-assembly:

NOTE: Due to weight of the sub-assembly, lifting and installing may require two installers.

10. Lightly grease the shank of the "fishmouth" body (**Figure 17**).
11. Install the "fishmouth" body (XA-11552) into the housing (XA-749 or XA-749-1) and hold against the housing (**Figure 17**).
12. Install the new washer (XA-782) (**Figure 18**).
13. Install the new castellated nut (XB-780-1). Hand tighten the castellated nut (XB-780-1) (**Figure 19**).
14. Torque the castellated nut (XB-780-1) to 100 ft.-lbs. (136 N•m).

Figure 16

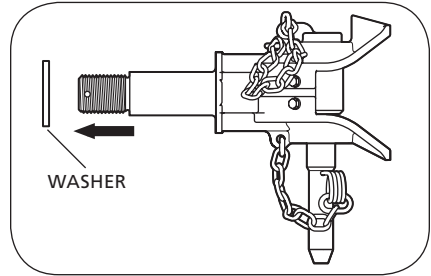


Figure 17

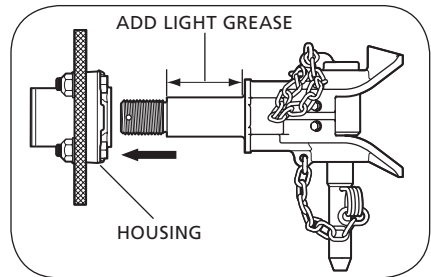


Figure 18

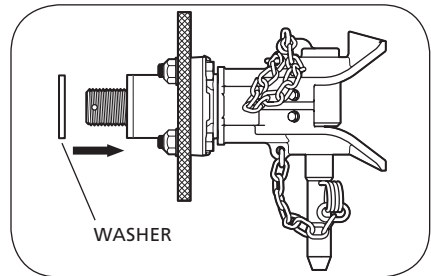
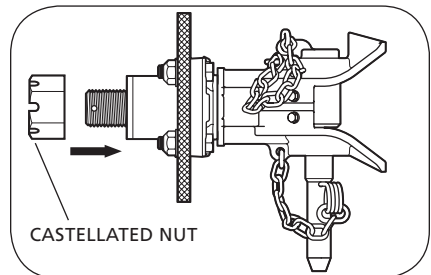


Figure 19



15. Back off the castellated nut (XB-780-1) until the hole in the shank first becomes visible through the castellations of the nut (**Figure 20**).
16. Insert the cotter pin (XB-781-1) (**Figure 21**).
17. When the cotter pin is completely inserted spread the ends of the cotter pin (XB-781-1) (**Figure 22**).
18. Grease the housing using the grease fitting. Wipe away excess grease to avoid attracting debris.
19. The coupler should rotate freely by hand with a maximum gap of .04" (1.0 mm) between the rear mounting flange and coupler (**Figure 23**).

Figure 20

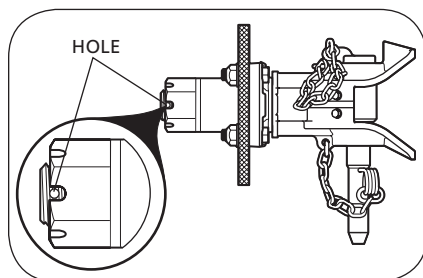


Figure 21

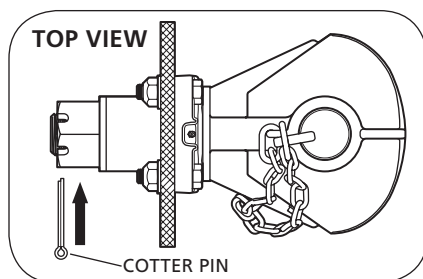


Figure 22

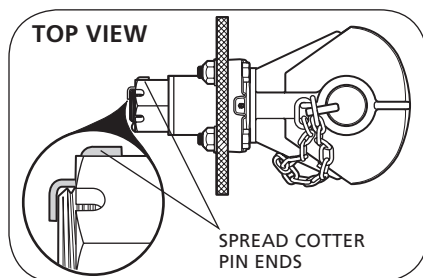
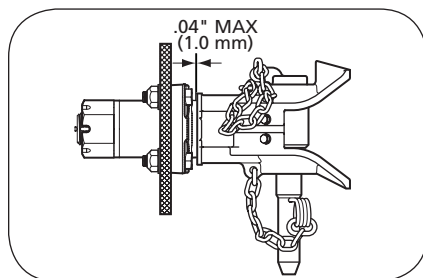


Figure 23



7. Operating Instructions

Before operating, inspect for proper operation, worn, damaged, or missing parts, and make sure mount is secure.

⚠ WARNING If the coupler is not properly secured to the mounting surface, the coupler could separate from the vehicle which, if not avoided, could result in death or serious injury.

1. Unlock the safety pin (XB-0437) (**Figure 24**).
2. Remove the safety pin (XB-0437) from the clevis pin (XA-10287) (**Figure 25**).
3. Lift the clevis pin (XA-10287) out of the "fish mouth" body (**Figure 26**).
4. Position and fully insert the drawbar eye into the center of the "fish mouth" body (**Figure 27**).

Figure 24

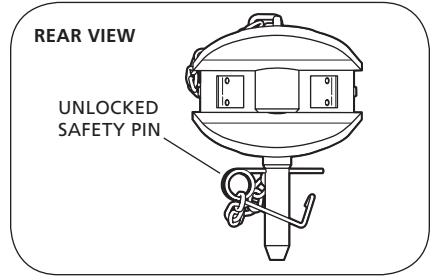


Figure 25

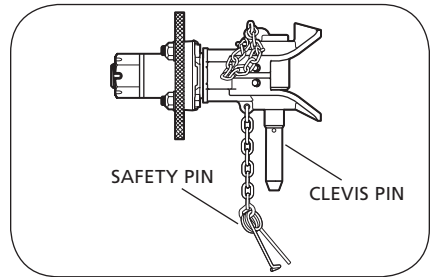


Figure 26

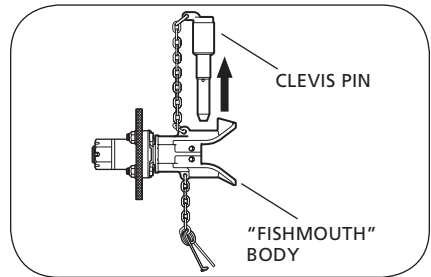
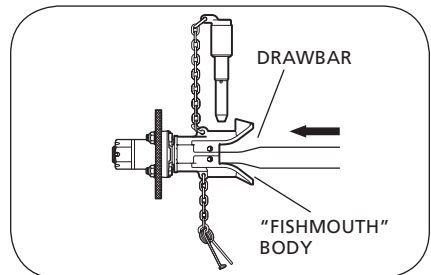
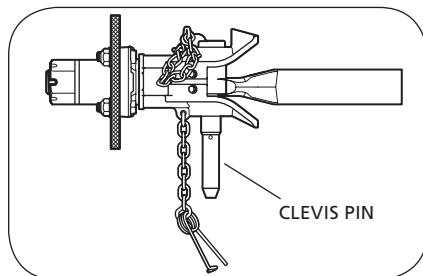
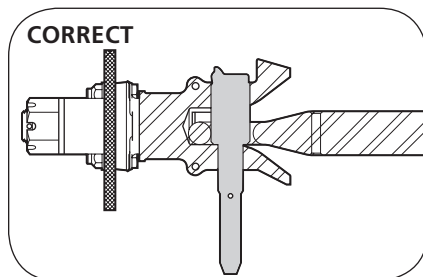
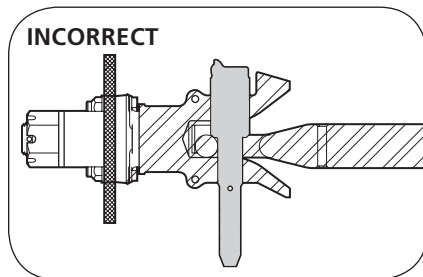
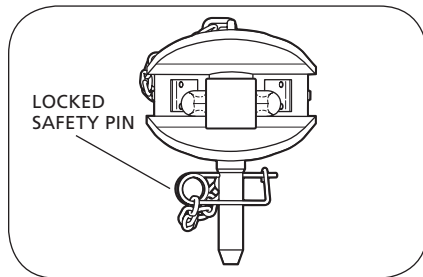


Figure 27



5. Insert the clevis pin (XA-10287) (**Figure 28**).
6. Ensure the clevis pin is inserted into the drawbar eye correctly (**Figure 29 and 30**).
7. Insert and lock the safety pin (XB-0437) (**Figure 31**).

WARNING Failure to correctly lock the safety pin into the clevis pin can result in separation of the clevis pin and drawbar, which, if not avoided, could result in death or serious injury.

Figure 28

Figure 29

Figure 30

Figure 31


8. Maintenance

The following maintenance steps should be performed every 30,000 miles (48,280 km) or three (3) months, whichever comes first.

⚠ WARNING Failure to inspect and maintain the coupler may result in separation of the coupler and drawbar, which, if not avoided, could result in death or serious injury.

1. Clean and check for proper operation. Inspect for cracked, damaged or missing parts. Replace as required using only genuine SAF-HOLLAND parts. See Parts List, page 5.
2. The coupler should rotate freely by hand with a maximum gap of .04" (1.0 mm) between the rear mounting flange and coupler (**Figure 32**). To adjust gap. See Section 6 steps 14-19, pages 12-13.
3. Inspect the clevis pin (XA-10287) for wear using a straight edge. Replace when wear exceeds 1/8" or .125" (3.18 mm) from the original surface profile (**Figure 33**).
4. Inspect the wear plates. Replace if worn or damaged. See Section 9, page 17.
5. Check for vertical play by pushing the "fishmouth" body against the housing and then lifting up and pushing down on the "fishmouth" body (**Figure 34**). Replace the housing when the vertical play between the "fishmouth" body and housing exceeds 0.125" (6.35 mm).
6. Lubricate the housing using the grease fitting. Wipe away excess grease to avoid attracting debris.
7. Regularly clean and lubricate the clevis pin with a light oil to prevent rust. Wipe away excess lubricant to avoid attracting dust and debris.
8. Verify the torques on the mounting fasteners. See Section 6 step 7, page 10.

Figure 32

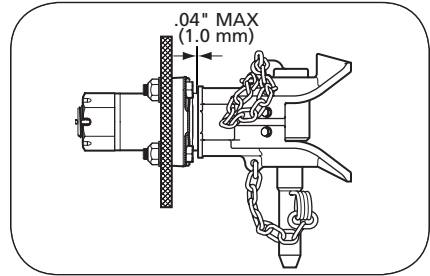


Figure 33

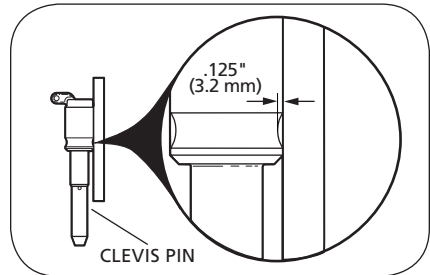
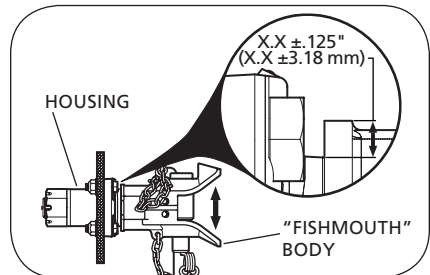


Figure 34

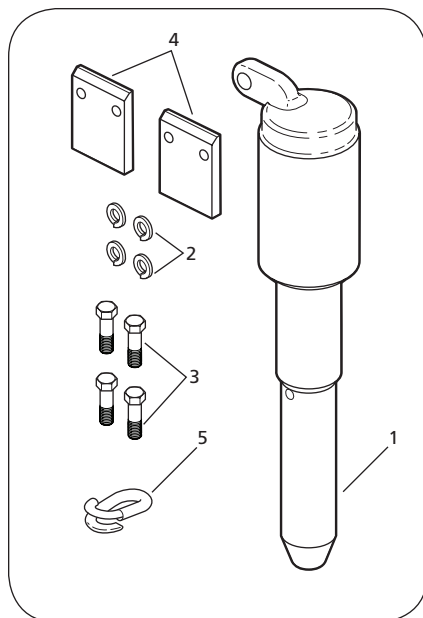


9. Rebuild Kits

RK-10291 (Figure 35).

ITEM	PART NUMBER	QTY.	DESCRIPTION
1	XA-10287	1	Pin, Clevis
2	XB-T-61	4	Washer, Lock 3/8"
3	XB-10738	4	HHCS, 3/8"-16 x 1-1/8" LG
4	XA-10008	2	Plate, Wear
5	XB-T-993-1	1	Link, Connecting

Figure 35









From fifth wheel rebuild kits to suspension bushing repair kits, SAF-HOLLAND Original Parts are the same quality components used in the original component assembly.

SAF-HOLLAND Original Parts are tested and designed to provide maximum performance and durability. Will-fits, look-alikes or, worse yet, counterfeit parts will only limit the performance potential and could possibly void SAF-HOLLAND's warranty. Always be sure to spec SAF-HOLLAND Original Parts when servicing your SAF-HOLLAND product.

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