

# C88 Seized Hub Removal Instructions

## SAF-HOLLAND® Axles with C88 Integral Disc Brakes

### Introduction

These instructions provide the necessary information to properly remove existing C88 Hubs that are seized onto the axle spindle and cannot be removed using standard practices.

Read this manual before using or servicing this product and keep it in a safe location for future reference. Updates to this manual, which are published as necessary, are available on the internet at [www.safholland.us](http://www.safholland.us).

Use only SAF-HOLLAND® Original Parts to service the SAF-HOLLAND axle. A list of technical support locations that supply SAF-HOLLAND Original Parts and an Aftermarket Parts Catalog are available on the internet at [www.safholland.us](http://www.safholland.us) or contact Customer Service at 888-396-6501.

### Notes, Cautions and Warnings

Before starting any work on the unit, read and understand all the safety procedures presented in this manual. This manual contains the terms "NOTE", "IMPORTANT", "CAUTION", and "WARNING" followed by important product information. These terms are defined 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.

### 1. General Safety Instructions

- Read and observe all Warning and Caution hazard alert messages in this publication. They provide information that can help prevent serious personal injury, damage to components, or both.

#### **⚠ WARNING**

Failure to follow the instructions and safety precautions in this manual could result in improper servicing or operation leading to component failure which, if not avoided, could result in death or serious injury.

- All installation should be performed by a properly trained technician using proper/special tools, and safe procedures.

**NOTE:** In the United States, workshop safety requirements are defined by federal and/or state Occupational Safety and Health Act (OSHA). Equivalent laws could 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.

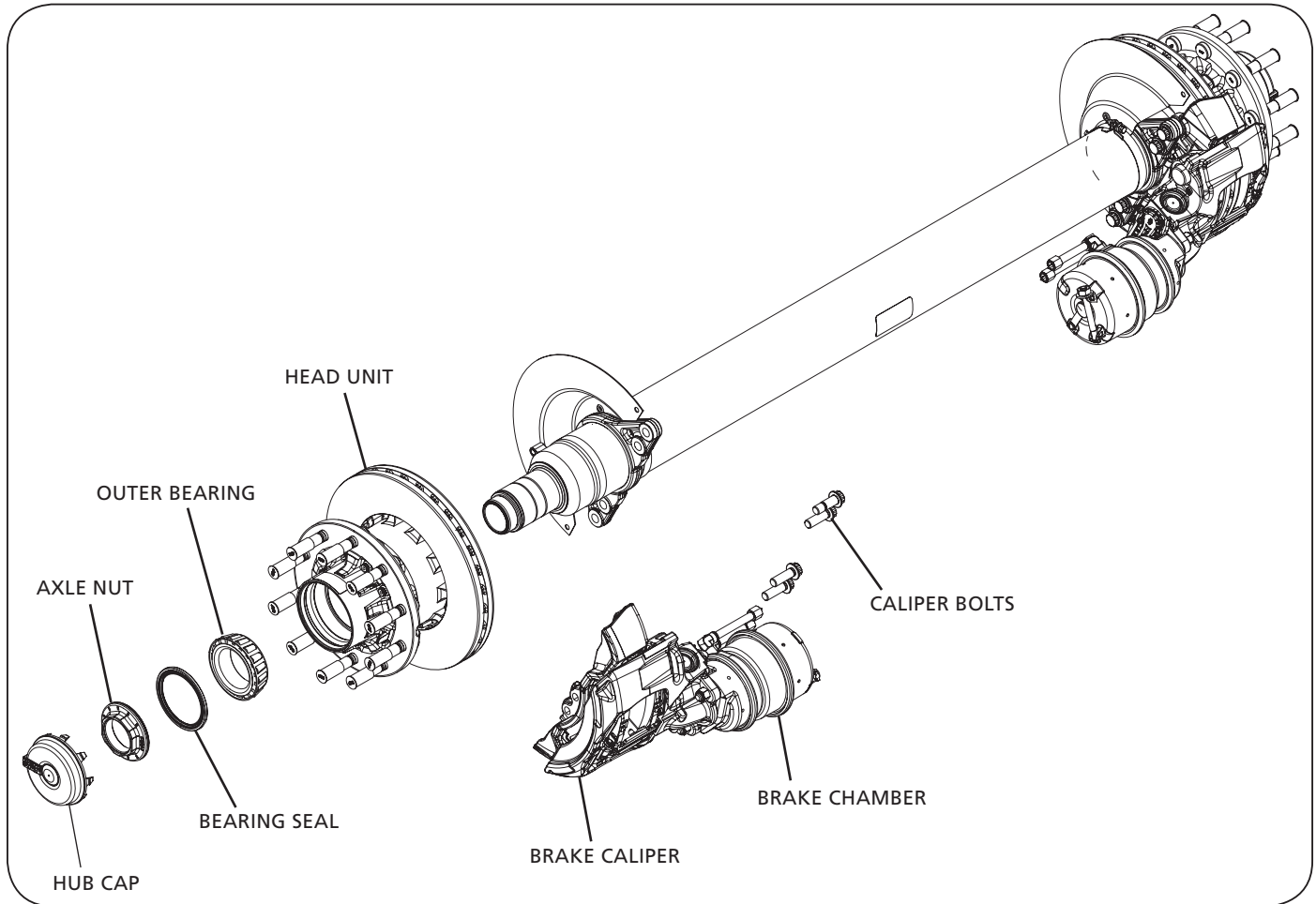
- Properly support and secure the vehicle and axles from unexpected movement when servicing the unit.

#### **⚠ WARNING**

Failure to properly support the vehicle and axles prior to commencing work could create a crush hazard which, if not avoided, could result in death or serious injury.

- If possible, unload the trailer before performing any service procedures.

Figure 1



## 2. Removal Instructions

1. Disconnect the air lines from the brake chamber. Remove the brake chamber from the brake caliper by loosening and removing the two (2) mounting nuts as illustrated in **(Figure 2)**.
2. Remove the brake caliper from the brake spider by using a size 24 mm socket to loosen and discard all four (4) brake caliper bolts as illustrated in **(Figure 3)**.
3. Using a hub cap puller, remove the plastic hub cap at the reinforced undercut on the side of the cap as illustrated in **(Figure 4)**.

**IMPORTANT:** The red dot in the middle of the SAF plastic hub cap is permanent and **MUST NOT** be removed.

4. Using a size 85 mm socket, remove the axle spindle nut by rotating the nut in either a left- or right-handed direction, respectively for the road or curbside of the axle.

**NOTE:** The SAF® compact bearing system uses a single piece spindle nut which has a left-hand thread on the roadside of the axle and a right-hand thread on the curbside of the axle. The axle nut with a left-handed thread can be identified by a circular groove **(Figure 4)**. The left-hand threaded axle spindle can be identified by a frontal groove on the end of the axle spindle.

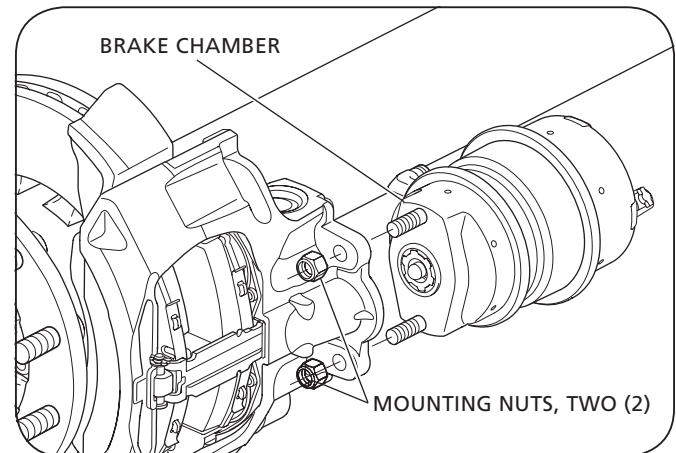
**NOTE:** DO NOT remove the SAF compact bearing spindle nut with an impact wrench. Due to the self-tightening design of the SAF compact bearing spindle nuts, it may be necessary to apply high torque of up to 1,600 ft.-lbs. (2,170 N•m) to loosen the spindle nuts. Use an appropriate length hand wrench and torque multiplier to loosen the SAF compact bearing spindle nut.

**IMPORTANT:** DO NOT use an impact wrench to remove the SAF compact bearing spindle nut.

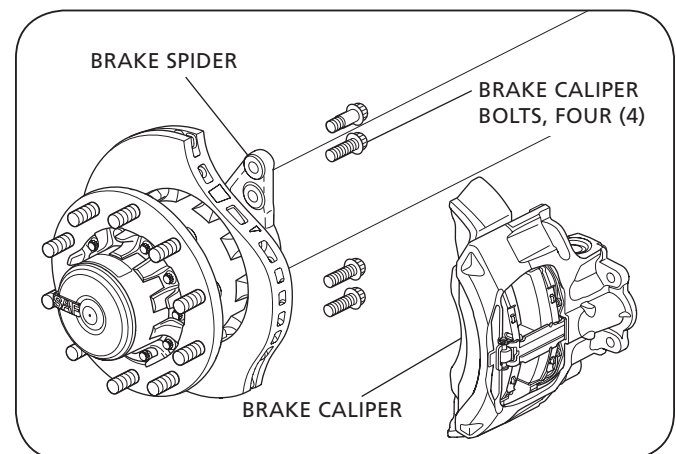
**CAUTION**

The high speed generated from air impact wrench to loosen the high clamp load of the SAF compact bearing spindle nut could result in damage to the spindle threads.

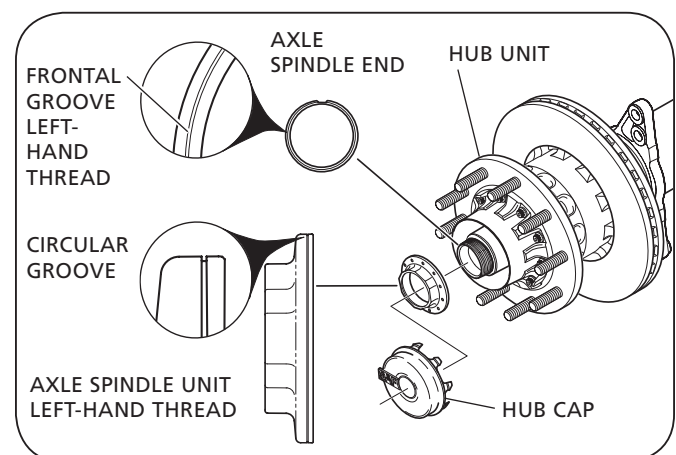
**Figure 2**



**Figure 3**



**Figure 4**



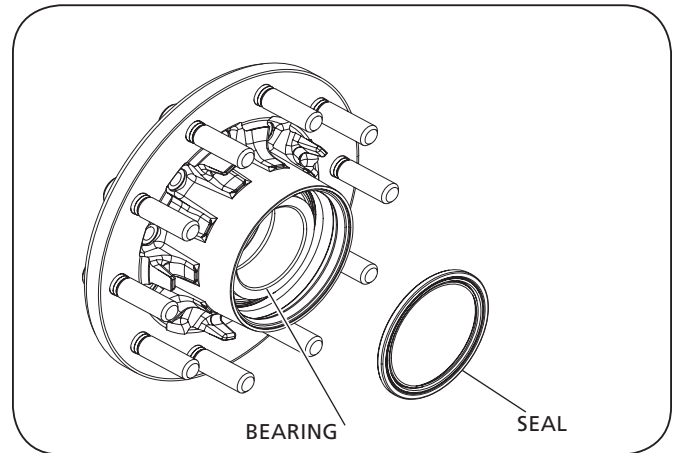
5. Remove the bearing seal to expose the outer bearing as illustrated in **(Figure 5)**.
6. Using a grinder, cut out a section of the roller retaining flange at 6 o'clock on the side of the bearing as illustrated in **(Figure 6)**.

**CAUTION** Do not allow the grinder to make contact with the axle spindle. Failure to avoid contact with the axle spindle could result in property damage.

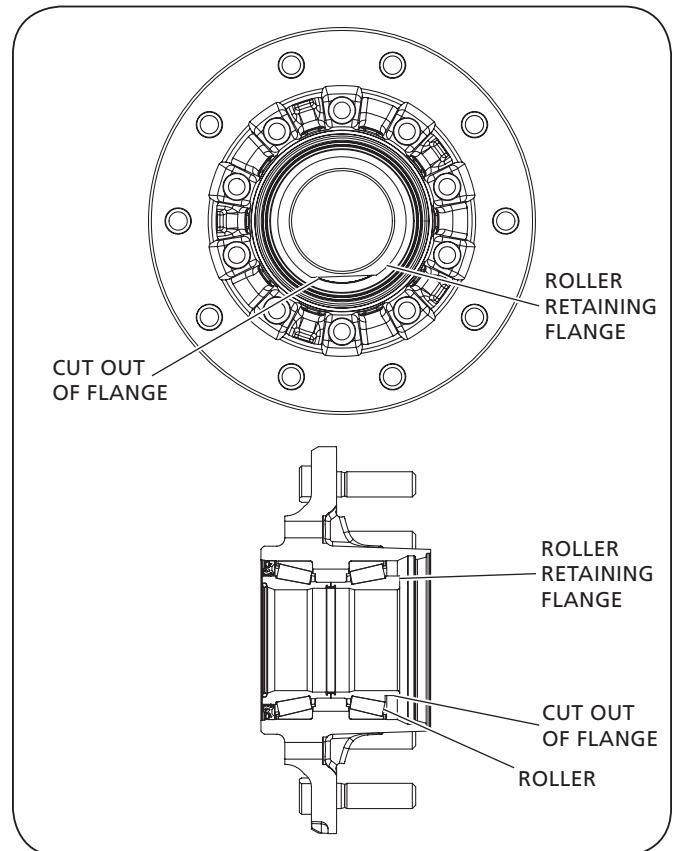
**CAUTION** Failure to follow standard practices when operating cutting equipment could cause a potentially hazardous situation which, if not avoided, could result in minor to moderate injury. ALWAYS consult the owner's manual of the tool you are using for recommended operating procedures.

7. Cut the plastic bearing retainer and remove each roller from the outer bearing, through the gap in the roller retaining flange as illustrated in **(Figure 7)**.

**Figure 5**



**Figure 6**



**Figure 7**



8. Remove the head unit by gently sliding it off the spindle as illustrated in **(Figure 8)**. The inner bearing will fall apart during this process.
9. The inner bearing races can be removed from the axle spindle using a chisel or punch as illustrated in **(Figure 9)**. DO NOT damage the spindle or spindle threads during this process.

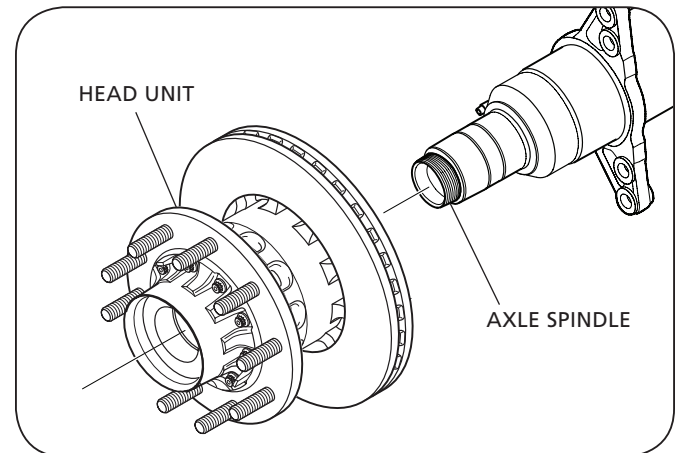
**NOTE:** Some additional force may be required to unseat the rear seal.

**CAUTION**

Do not allow the chisel or punch to contact the axle spindle. Failure to avoid contact with the axle spindle could result in property damage.

10. Remove the hub unit from the rotor by using a size 15 mm socket to loosen and discard all ten (10) connection bolts. The hub must also be discarded since the bearings are damaged. Remove the bearing O-Ring seal from the hub unit and discard **(Figure 10)**.
11. For hub installation instructions follow steps 9 through 22 beginning on page 14 of XL-SA100590M-en-US available for download at:  
<http://www.safholland.ca/us/en/downloads>

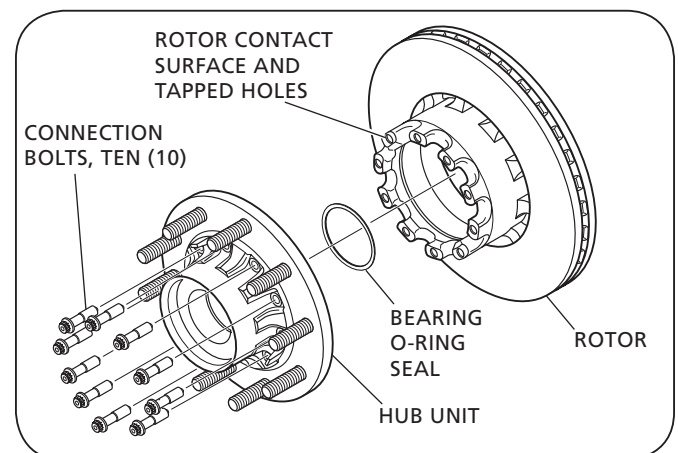
**Figure 8**



**Figure 9**



**Figure 10**











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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