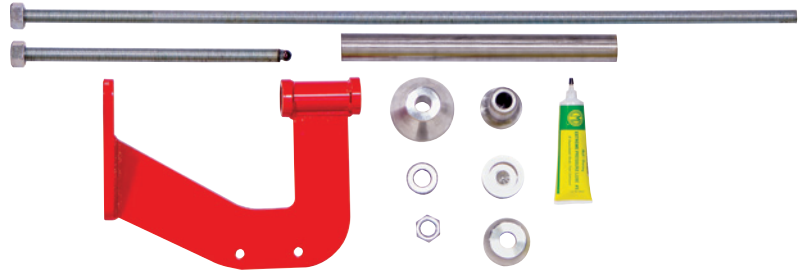




# Quick Change Tube Install/Removal Tool INSTRUCTIONS

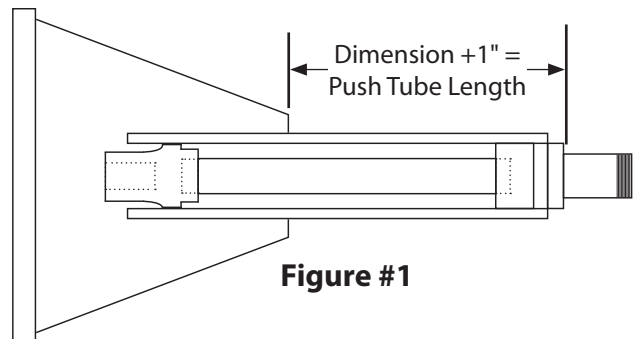
## Kit Includes:

- 1-Fixture Assembly
- 1-Outer Removal Slug for Aluminum/Steel Tubes
- 1-Inner Push Tube Slug for Steel Tubes
- 1-Push Tube (1-3/4" x .120" for steel axle tube removal only)
- 1-Threaded Removal Mandrel (Short)
- 1-Threaded Installation Mandrel (Long)
- 1-Mandrel Nut
- 1-Bell Support Cone
- 1-End Cap for W5 and 5x5 2.0/2.5" Pins
- 1-Installation Mandrel Bearing
- 1-Tube High Pressure Grease



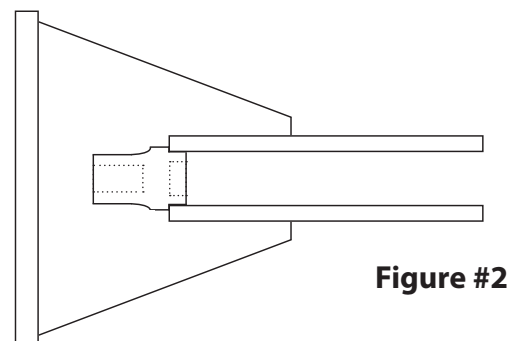
## Removing Steel Axle Tubes:

1. Remove inner axle seal if applicable.
2. A length of steel tubing (push tube) is included in this kit and it will require cutting to length depending on length of axle tube being removed. To determine the length of push tube measure from the outer edge of the bell to the snout bearing shoulder and add 1" to this measurement (See Figure #1). It is important to make this cut square. Tech Tip: Use a standard hose clamp tightened around tube as a guide if needed.
3. Place inner removal slug over end of push tube and place inside tube. Inner slug should make contact with end of welded-in snout inside axle tube.
4. Place outer removal slug over push tube and inside axle tube.
5. Place assembly in fixture using care to keep slugs and push tube together.
6. Proceed to **Removal Continued** (at top of page 2).



## Removing Aluminum Axle Tubes:

1. Remove inner axle seal if applicable.
2. Place outer removal slug inside bell making contact with inner edge of tube (See Figure #2).
3. Place assembly in fixture using care to keep slug inside tube.





# Quick Change Tube Install/Removal Tool INSTRUCTIONS

## Removal Continued:

1. Place removal mandrel through fixture with ball end towards bell and start mandrel nut on ball end.
2. Thread nut down mandrel and position into hex in fixture head.
3. Apply a generous amount of high pressure grease to ball end and threads of removal mandrel.
4. Tighten removal mandrel until ball is seated inside outer removal slug (See Figure #3) .
5. Using a torque wrench set at 200ft pounds tighten mandrel and press out old tube. If 200ft pounds is reached and tube has not begun to move it will be necessary to heat the bell around the area where the tube is installed with a heat gun. Do not attempt to heat bell with an open flame such as cutting torch.
6. Tighten mandrel until tube is fully removed.

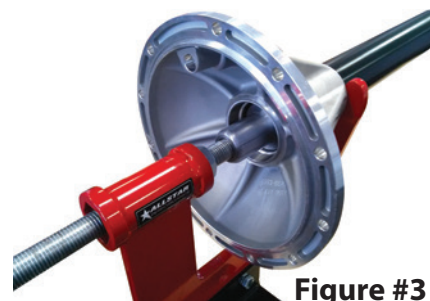


Figure #3

## Installing Axle Tubes:

1. Place bearing assembly over installation mandrel.
2. Place end cap over installation mandrel with stepped end away from bearing, this will contact end of axle tube when pressing assembly together.
3. Install installation mandrel in snout end of tube (See Figure #4).
4. Install installation mandrel in bell as it would be assembled.
5. Place bell support cone over installation mandrel with wide end towards bell.
6. Place tube and bell assembly in fixture as shown in Figure #5.
7. Apply a generous amount of high pressure lube to threaded end of assembly mandrel.
8. Place installation mandrel through fixture.
9. Thread nut onto mandrel and position into hex in fixture head.
10. Apply penetrating oil or similar lubricant to inside of bell and outside of tube to assist assembly.
11. Tighten mandrel keeping axle tube and bell straight until tube seats into bell. **Note: Due to the varying tolerances of tubes and bells it may be required to chamfer the end of the tube to assist in starting tube into bell.**

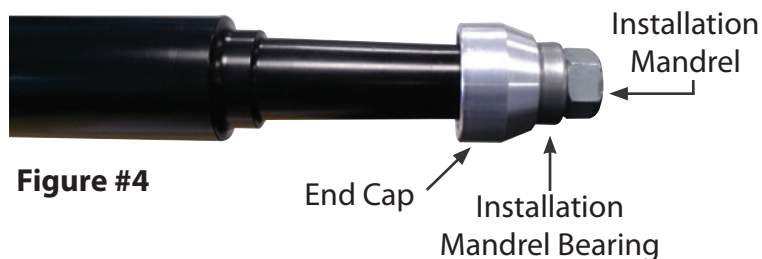


Figure #4



Figure #5