

INSTALLATION MANUAL:

Assembly / Disassembly Tool
2.00", 2-3/8", & 2-5/8" Bushings



INCLUDED ITEMS

2500220 Assembly/Disassembly Tool - 2" Upper Bushings

QTY	Part Number	Description	Class/Grade
1	1000002A	Control Arm Bushing Tool - Sleeve	N/A
1	1000002B	Control Arm Bushing Tool - Press	N/A

2500230 Assembly/Disassembly Tool - 2 3/8" & 2 5/8" Bushings

QTY	Part Number	Description	Class/Grade
1	1000003A	Control Arm Bushing Tool - Sleeve	N/A
1	1000003B	Control Arm Bushing Tool - Press	N/A

Product Notes and Features:

The Assembly/Disassembly Tool for Control Arm Bushings can be used to press out old, worn-down bushings and install new ones. Specifically machined for Clayton Control Arms, these tools can be used (along with a hydraulic press) to breathe new life into your suspension setup.

- Designed for use with Clayton Off Road Control Arms (forged end and sleeve end)
- Designed to be used with a 6-ton hydraulic press (minimum rating)

NOTE:

Bushings are often only **good for a single press**. This means that if a new bushing has to be pressed out for any reason, there is a chance that the bushing may not fit or seat properly if it's pressed back into its housing. Please consider this if you are powder coating your suspension components (**bushings will melt under extreme heat cases, such as a powder coating oven**).



DISCLAIMER

WARNING:

Suspension systems and their components are designed to enhance your vehicle's off-road performance. This may cause your vehicle to handle differently, on and off-road. Always wear your seatbelt and take extra care when driving a modified vehicle. Failure to do so can result in loss of control which may result in a rollover causing serious injury, or even death to the driver and/or passengers of the vehicle. Regular maintenance and consistent inspections are required to keep your modified vehicle safe and functioning properly. These suspension systems and any components should be installed by certified technicians only. Attempts to install these products without proper knowledge can lead to poor performance, or possible failure, which may jeopardize the safety of the vehicle and its passengers. The installer is responsible for proper installation ensuring a safe and properly functioning vehicle. Take extra care when operating a modified vehicle and thoroughly inspect your vehicle before and after every off-road use.

Read the instruction set in its entirety before attempting the installation.

NOTE:

This product may require general welding, fabrication, and automotive mechanic skills. Welding should only be done by a competent welder. Clayton Off Road implies no guarantees or warranties and is not liable for improper installation. Some grinding and fitment may be required when installing this product. Every vehicle varies slightly, and some fabrication and/or modification may be required.

ATTENTION:

It is the customer's responsibility to thoroughly inspect all received parts to ensure they are assembled correctly and fully welded. Please carefully examine all weld seams and verify that bolt-through holes are properly aligned. Some Clayton Off Road products are permanent, non-removable, weld-on solutions. **If a defect or issue is found after installation, especially with permanent weld-on components, it may be difficult or impossible to correct.** Inspecting the part(s) received beforehand helps prevent unnecessary and avoidable complications.

ATTENTION: TORQUE SPECIFICATION

When working on any vehicle, it is good practice to torque suspension/weight-bearing components while the vehicle is resting under its load. This instruction set, as well as any other Clayton Off Road instruction set, assumes the installer will tighten any suspension-related components properly, to the recommended torque specification, when the vehicle is resting safely under its own weight.

INSTALLATION INSTRUCTIONS

TOOLS REQUIRED FOR INSTALLATION

- Control Arm Bushing Tool - Sleeve
- Control Arm Bushing Tool - Press
- Hydraulic Press (6-ton minimum)

1. Removing a worn-out bushing:

- Position the sleeve tool directly under the piston of the hydraulic press. Leave plenty of travel room to locate the upper press tool (Figure 1).
- Place the forging end of the control arm **flat** on top of the sleeve, with one end of the bushing fitted inside the top of the sleeve (Figure 2). You may leave the control arm threaded onto the forging, as it does not need to be removed.

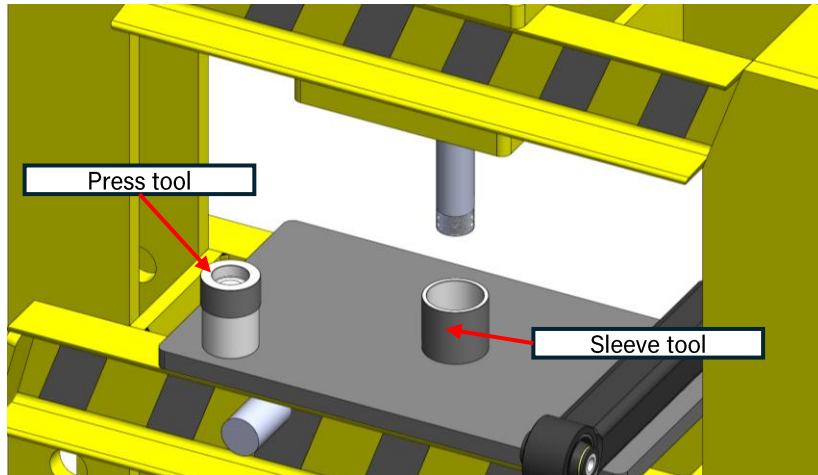


Figure 1: Sleeve located below piston

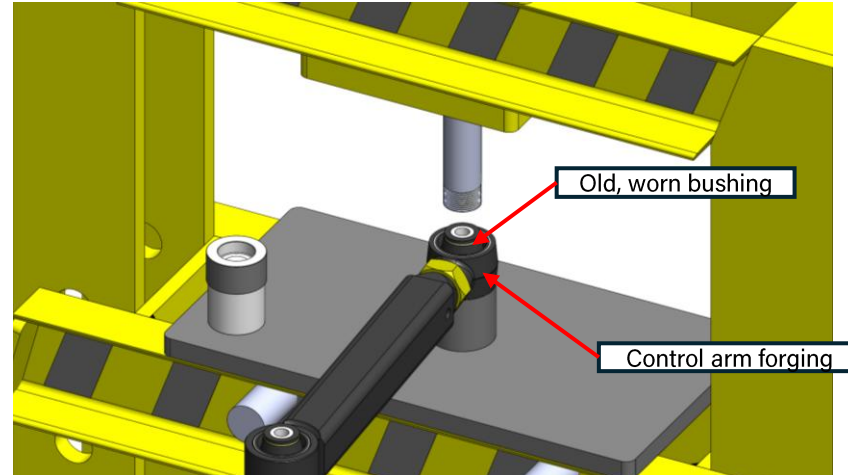


Figure 2: Control arm forging laying flat on sleeve

INSTALLATION INSTRUCTIONS

2. Removing a worn-out bushing:

- Place the included press tool directly on top of the worn-out bushing. The cutout in the bottom will slip over the rubber material and internal sleeve (Figure 3).
- Start the hydraulic press until it makes contact with the press tool at the shaft of the press (Figure 4).
- Keep your hands clear of the press and push the bushing out of the forging. The worn bushing will fall into the sleeve (Figure 5).

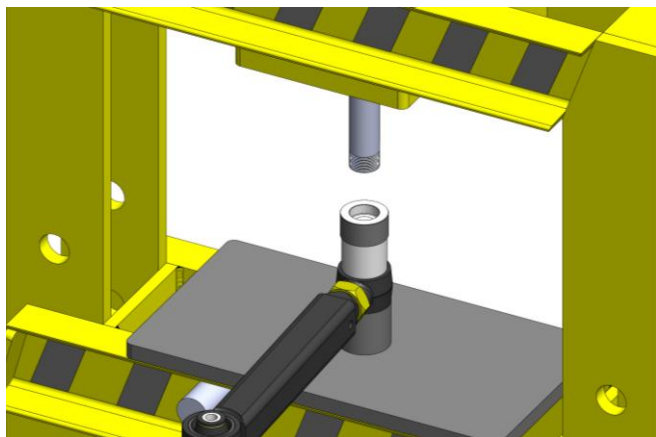


Figure 3: Press tool placed on top of forging

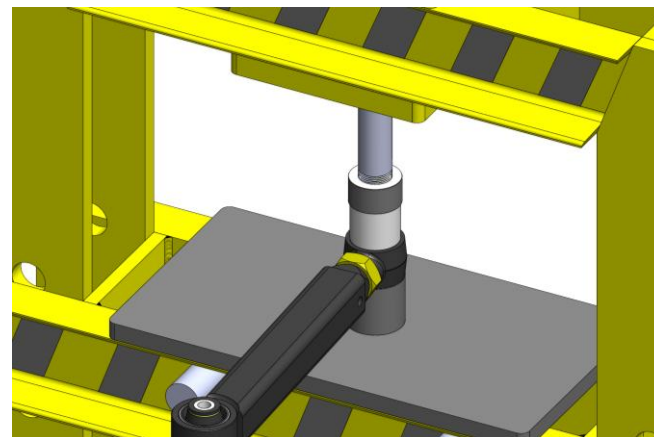


Figure 4: Bushing slightly pressurized

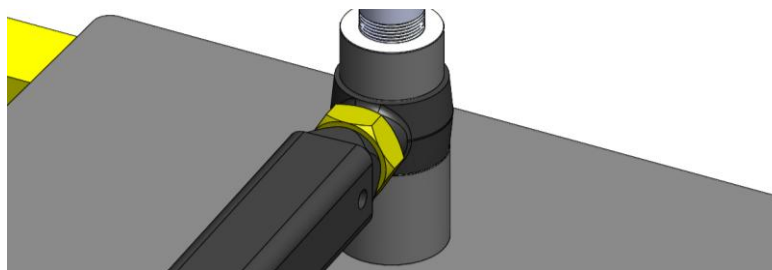


Figure 5: Bushing pressed out

INSTALLATION INSTRUCTIONS

3. Installing a new bushing:

- Retract the press piston and remove the worn-out bushing from the sleeve. Clear the press tool and move it off to the side for now. Then, place the empty forging **flat** on the sleeve lip. (Figure 6).
- Locate the new bushing directly over the opening in the empty forging. Place the press tool with the large lip on top of the new bushing, and bring the hydraulic press down to make slight contact with the system.

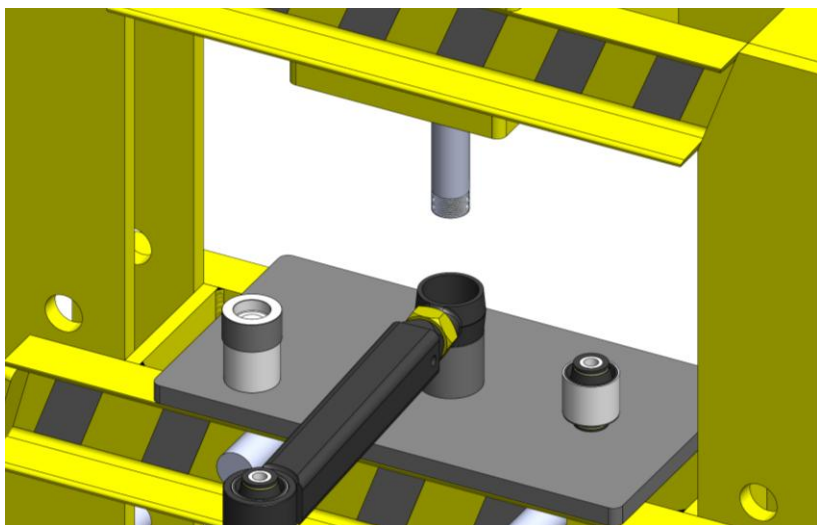


Figure 6: Empty forging placed on sleeve lip

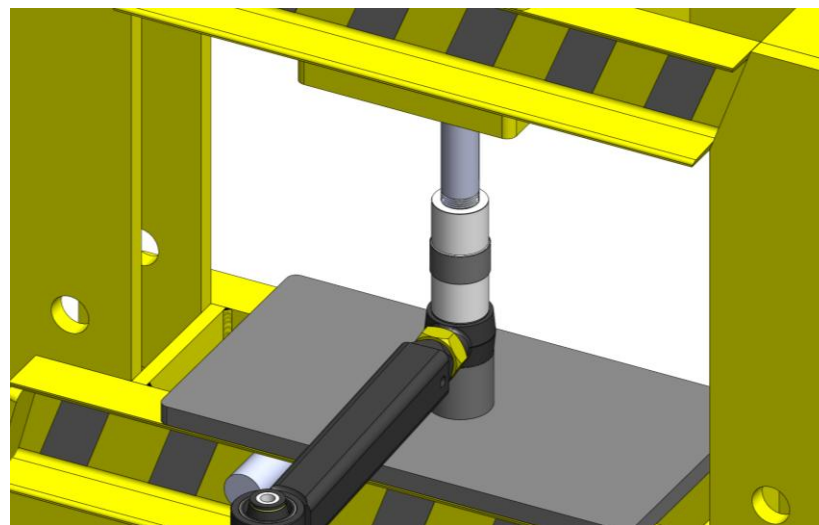


Figure 7: New bushing located with press tool ready

INSTALLATION INSTRUCTIONS

4. Installing a new bushing:

- Keep your hands clear of the press and push the new bushing into the forging (Figure 8).

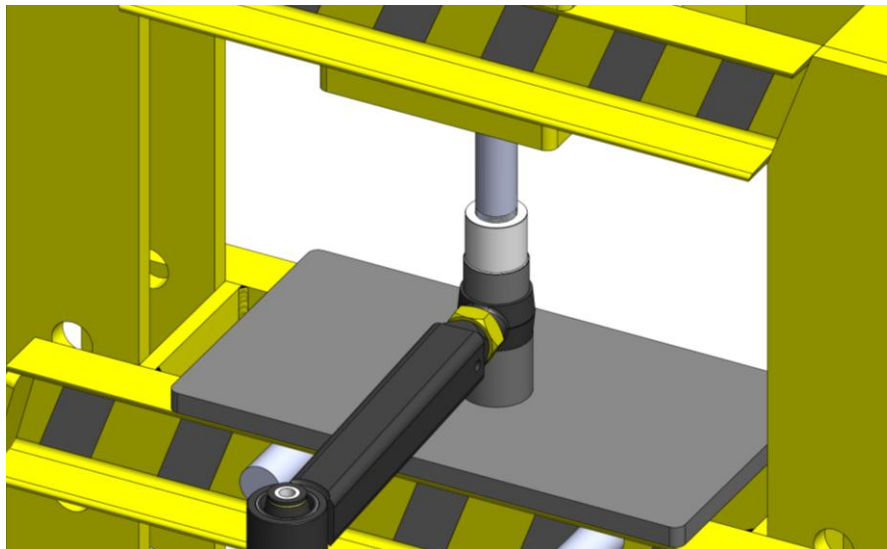
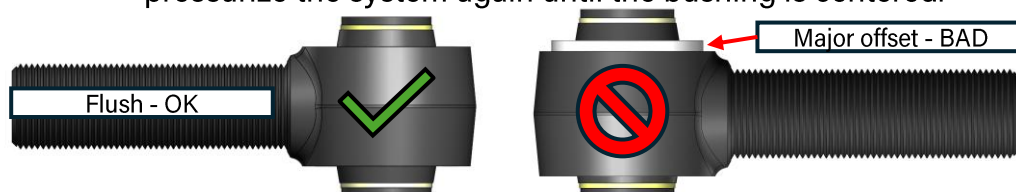


Figure 8: New bushing pressed into forging

Depressurize the hydraulic press and remove the tooling and control arm. Verify that the bushing is evenly spaced inside the forging, and sits flush against the lip on both sides. See the figures below. If you have a major offset, flip the forging around, and pressurize the system again until the bushing is centered.



INSTALLATION INSTRUCTIONS

5. If you are replacing the other control arm bushing (located in the welded, sleeved housing), please repeat Steps 1-4.



Figure 10: Sleeved end of the control arm with worn bushing pressed out and replaced

INSTALLATION INSTRUCTIONS

6. Congratulations, you've replaced your Clayton Off Road Control Arm Bushings. Reinstall your control arm in the orientation that it was removed. If the forging was removed from the control arm, take the time to reapply a small amount of anti-seize before reinstalling.



Figure 11: Bushing swap complete