
Rear Suspension Bushing Remover/Installer

Application: FAS II AirLiner Semi-Tractor Suspension



Explanation of Safety Signal Words

The safety signal word designates the degree or level of hazard seriousness.

! **DANGER:** Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

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

! **CAUTION:** Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

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

Parts List & Operating Instructions

Safety Precautions



CAUTION: To prevent personal injury and/ or property damage,



- Study, understand, and follow all safety precautions and operating instructions before using this rear suspension bushing remover/installer. If the operator cannot read instructions, operating instructions and safety precautions must be read and discussed in the operator's native language.
- Only qualified operators may install, operate, adjust, maintain, clean, repair, inspect, or transport this rear suspension bushing remover/installer.



- Wear eye protection that meets ANSI Z87.1, CE EN166, AS/NZS 1337, and OSHA standards.
- Do not use this rear suspension bushing remover/installer for anything other than its intended purpose.
- No alteration shall be made to this product.
- Inspect the condition of the rear suspension bushing remover/installer before each use; do not use if damaged, altered, or in poor condition.
- Use only those repair parts called out in the parts list in this document. Items found in the parts list have been carefully tested and selected by OTC.

Hose



- Before operating the pump, tighten all hose connections using the correct tools. Do not overtighten; connections need only be secure and leak-free. Overtightening can cause premature thread failure or high pressure fittings to split at pressures lower than their rated capacities.
- Should a hydraulic hose ever rupture, burst, or need to be disconnected, immediately shut the pump OFF, and open the control valve to release all pressure. NEVER grasp a leaking, pressurized hose with your hands; the force of escaping hydraulic fluid could cause serious injury.
- Do not subject the hose to any potential hazard such as fire, extreme cold or heat, sharp surfaces, or heavy impact. Do not allow the hose to kink, twist, curl, or bend so tightly that the fluid flow within the hose is blocked or reduced. Do not use the hose to move attached equipment. Periodically inspect the hose for wear, because any of these conditions can damage the hose and result in personal injury.
- Hose material and coupler seals must be compatible with the hydraulic fluid used. Hoses also must not come in contact with corrosive materials, such as creosote-impregnated objects and some paints. Consult the manufacturer before painting a hose. Never paint couplers. Hose deterioration due to corrosive material can result in personal injury.

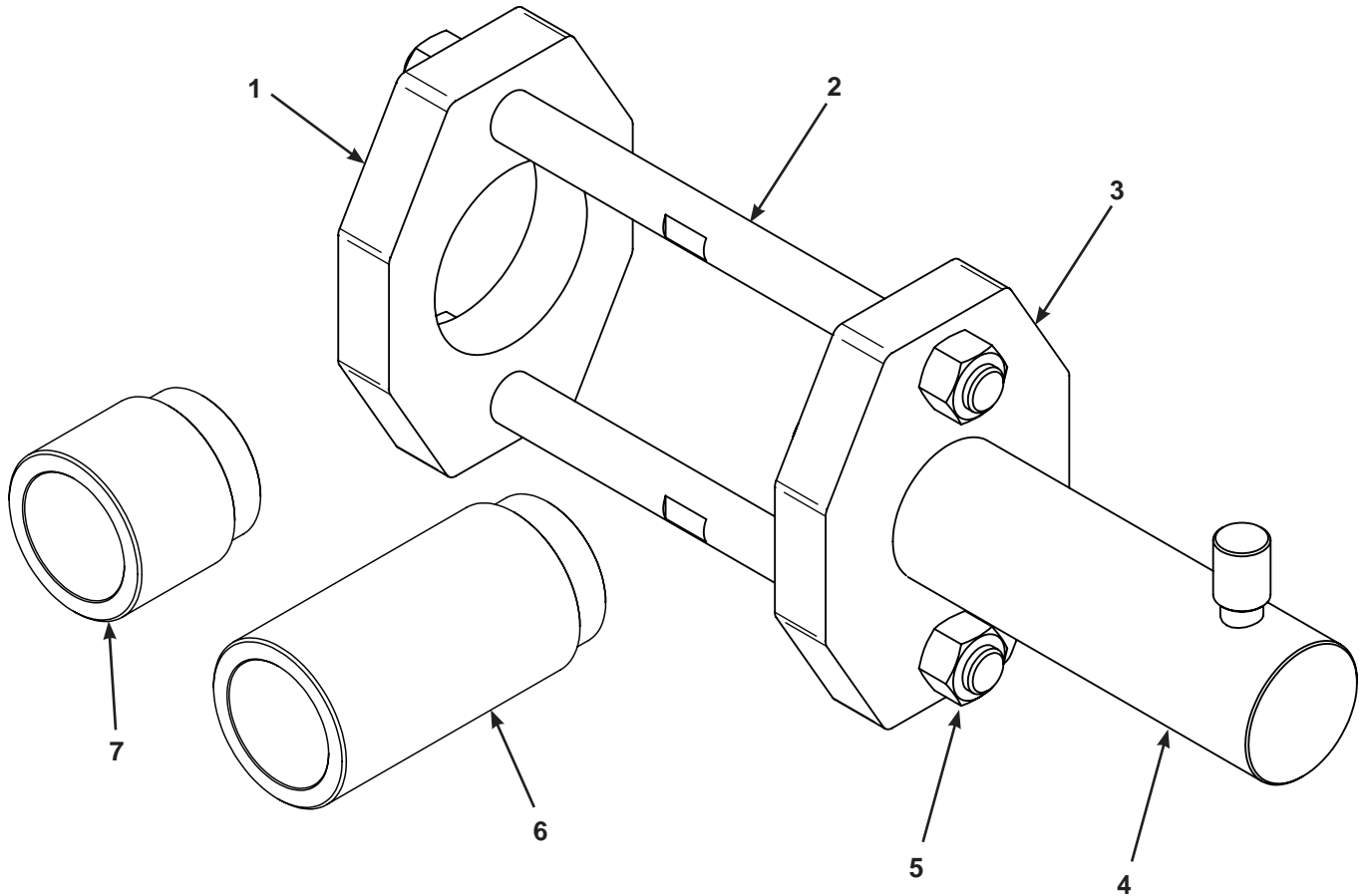
Pump

- Do not exceed the maximum capacity of the pump or tamper with the internal high pressure relief valve. Creating pressure beyond the rated capacity can result in personal injury.
- Completely retract the ram before opening the filler screw on the pump to add hydraulic fluid. An overfill can cause personal injury due to excess reservoir pressure created when rams are retracted.

Cylinder

- Do not exceed the maximum capacity of the cylinder. Creating pressure beyond the rated capacity can result in personal injury.
- Adapters must be aligned and fully engaged so ram force is straight, avoiding an off-center load condition.

Parts List



Item No.	Part No.	No. Req'd	Description
1	559016	1	Pushing Head
2	559018	2	Threaded Rod
3	559017	1	Cylinder Mounting Plate
4	561407	1	15-Ton Cylinder
5	10218	4	Hex Nut
6	561037	1	Adapter
7	561036	1	Adapter
Parts Included But Not Shown			
	2510A	1	Air/Hydraulic Pump (for 4245)
	36886	1	Hose Assembly (for 4245)
	9798	1	Hose Half Coupler (for 4245)
Replacement Kit			
	568700	1	Seal Kit (for 561407 cylinder)

Shaded area indicates the last revision made to this form.

Parts List & Operating Instructions

Setup

Refer to parts list.

1. Assemble the pushing head plate and cylinder mounting plate together with the two threaded rods, and secure with the four hex nuts.
2. Thread the cylinder into the cylinder mounting plate.
3. Prepare the air/hydraulic pump for use by following the instructions provided for hookup, venting, priming, and operation. **Note: A hydraulic hand pump can be used also.**
4. Connect the hydraulic hose from the hydraulic pump to the cylinder.

Operation

NOTE: The assistance of two people is required to position the rear suspension bushing remover/installer to the spring and align the cylinder piston, adapter and bushing for a straight push.

Bushing Removal

1. Begin by determining which side of the spring the bushing collar is on. The bushing will be removed by applying force to the bushing end opposite of its collar. See Figure 1.
2. Position the pushing head plate of the tool assembly on the bushing collar side of the spring. See Figure 2. Place adapter #561037 on the opposite (or non-collar) end of the bushing.
3. Operate the pump to extend the cylinder piston. As the piston begins to contact the adapter, adjust the alignment of all components to ensure a straight force is going to be applied. Apply enough pressure to hold the tool and components.
4. Operate the pump to apply just enough pressure to push the bushing out of the spring.

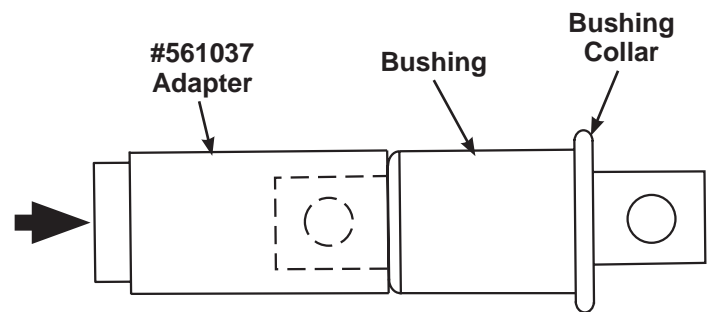


Figure 1

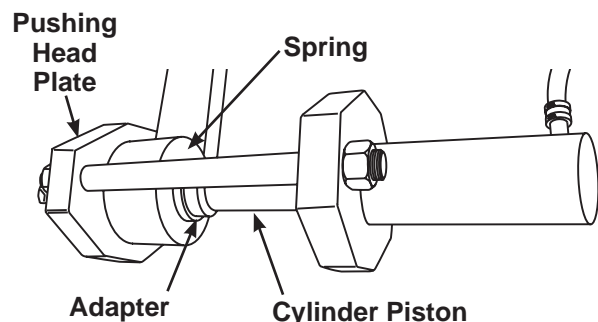


Figure 2

Bushing Installation

1. Clean and lubricate the inside diameter of the spring.
1. Position the tool assembly on the spring for installation of the bushing. Place adapter #561036 against the collar end of the bushing and the opposite bushing end to the spring. See Figure 3.
2. Operate the pump to extend the cylinder piston. As the piston begins to contact the adapter, adjust the alignment of all components to ensure a straight force is going to be applied. Apply enough pressure to hold the tool and components.
3. Operate the pump to apply just enough pressure to install the bushing completely into the spring.

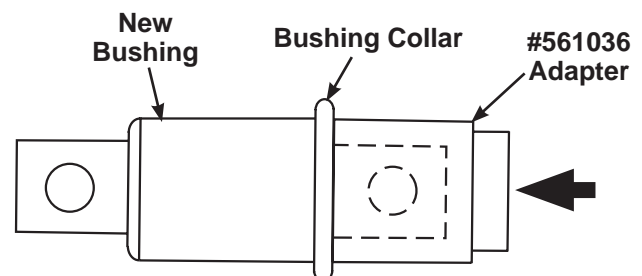


Figure 3

Inspection and Maintenance



CAUTION: To prevent personal injury,

- Only qualified personnel shall perform inspections to this rear suspension bushing remover/installer.
- Before each use, an approved inspector must inspect the rear suspension bushing remover/installer for bends, cracks, dents, elongated holes, or missing hardware. If damage is found, discontinue use.
- Use only those repair parts called out in the parts list in this document. Items found in the parts list have been carefully tested and selected by OTC.

Maintenance

To prevent contamination from entering the hydraulic system and damaging the cylinder, keep the cylinder clean. When the cylinder is not in use, keep the piston rod fully retracted and stored upside down. Use protective covers on disconnected quick couplers.

Disposal

At the end of its useful life, dispose of the rear suspension bushing remover/installer according to federal, state, and local regulations.