

90.203R Repair Kit / 90.10 Conversion Instructions

Use in conjunction with DADCO's Nitrogen Gas Spring Maintenance Instructions for the 90.5B and 90.10 Series (B00113C)

Follow Steps I – IV (1-2) from DADCO's Large Gas Spring Maintenance Instructions.

IV.a. Piston Rod Disassembly (Continued from DADCO's Large Gas Spring Maintenance Instructions)



1. Remove the wear ring and discard. **NOTE:** A 90.10 gas spring may be converted to a 90.10R gas spring by using the 90.203R Repair Kit.



2. Remove the two retainer halves and discard.



3. Tap or slide the cushion collar off from piston end. 90.10 Series Nitrogen Gas Springs will not have a cushion collar to remove.



1. Slide the cartridge off the rod and lightly polish the rod surface with an emery cloth (600 grit). Inspect the finish of the rod for any scratches or gouges, if damaged it must be replaced.

V.a. Rod Sub Assembly



2. Inspect the tube for any damage, especially around the mouth. Polish out any scratches, if damage is severe the tube must be replaced. Wash, clean and dry the inside of the tube.



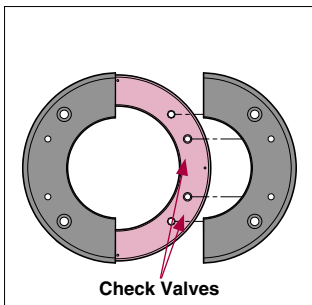
1a. Evaluate the position of the rod safety ring. If the ring is positioned like **Figure A**, lubricate the rod using some of the assembly oil and slowly tap the new cushion collar on the rod assembly from the top of the rod.



1b. If the ring is positioned like **Figure B**, the spring has an original RIC Rod. Remove the safety ring, lubricate the rod using some of the assembly oil and slowly tap the new cushion collar onto the rod from the groove end.



2. Install the new retainer halves and add the wear ring. Using a mallet or an Arbor Press, seat the collar against the rod retainers.



3. Ensure the correct alignment of the collar and rod retainer halves. Align the tapped holes in the collar with the tapped holes in the rod retainer. The check valves align with the smaller holes on the rod retainer. The above drawing depicts the correct alignment.



4. Fasten the cushion collar onto the rod retainer using the four collar retainer screws provided in the repair kit, torque value = 42 lb-in (5Nm).



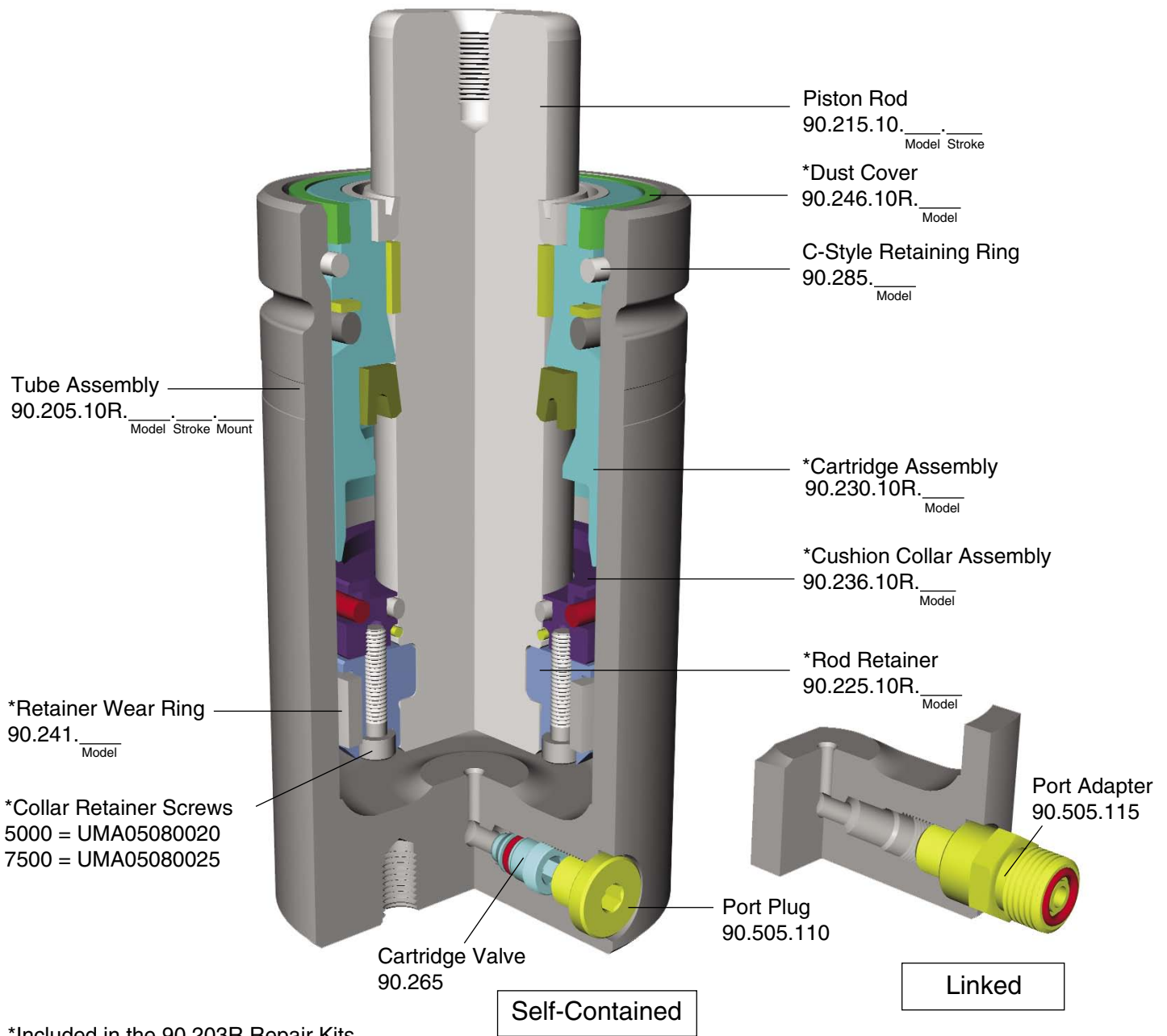
5. Position the cartridge assembly over the rod, making sure the wiper end marked "TOP" is facing up. Slide the cartridge down the rod to the cushion collar. Be careful not to force the cartridge at an angle as the seal could become damaged.



6. Extra oil should be applied to the housing o-ring, cushion seal and the inside of the housing.

Return to DADCO's Large Gas Spring Maintenance Bulletin Step VI., Step 3.

NOTE: A 90.203R Repair Kit can be used to repair a 90.10R Series Gas Spring with repair kit number 90.201R.05000 or 90.201R.07500 laser marked on the cylinder. This repair kit can also be used to convert a 90.10 Series Gas Spring to a Reduced Impact Cushion–RIC™ Series Gas Spring. After reviewing this maintenance guide, if you require any additional training or have any questions please contact DADCO for assistance.



*Included in the 90.203R Repair Kits.

90.203R Repair Kits

Include a fully assembled cartridge, dust cover, cushion collar, collar retainer screws, rod retainer, wear ring, bottle of assembly oil and a maintenance manual.

Model	Repair Kit No.
90.10R.05000	90.203R.05000
90.10R.07500	90.203R.07500