



CASTLE INC



Cylinder Rebuild Instructions

AT Race Table

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1 Removing the Cylinder

Over time your cylinders may slow down due to wear. It may be necessary to rebuild your cylinder by replacing the larger internal O-ring, the gasket, stainless steel washer and screw.

1. Turn off the airline to the regulator. The line is connected to the regulator by a push-in fitting. Push in on the outer ring to release the tension on the air line as you pull the airline out.
2. Remove the Arm from the table in the reverse order of the installation of the arm.
3. To remove the upper clamp cylinder assembly you will want to remove the Top Bracket and the rear plumbing bracket located at the upper end of the Clamp Arm. (Fig 58)

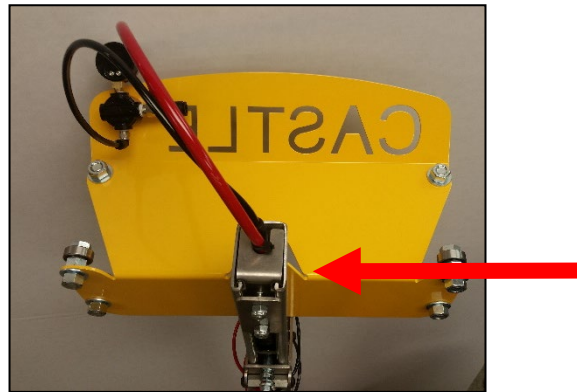


Fig 58

4. Slide the cylinders out of the Clamp Arm by pushing them through the top of the Upper Clamp Arm Bracket.
5. If you are rebuilding the clamp cylinder at the bottom of the arm or all the clamp cylinders, remove the bottom bracket first. Loosen the 2 screws as shown. (Fig 59)

6. Slide the cylinder(s) off the arm being sure to disconnect the spiral hoses from the push-in fittings as you remove each clamp cylinder.

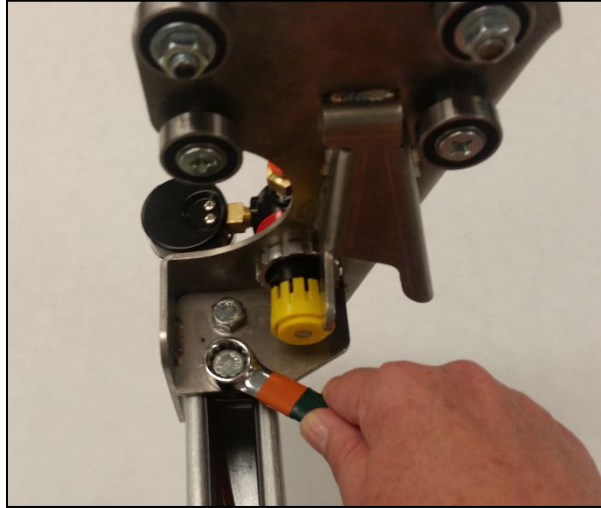


Fig 59

2 Rebuilding the Cylinder

The cylinders have O-rings and gaskets that help maintain pressure within the cylinder. Over time these seals can become worn or damaged and may need to be replaced. Contact Castle directly for information on replacement parts.

1. Turn off the air and remove the airline to the regulator. The line is connected to the regulator by a push-in fitting. Push the outer ring to release the tension on the airline as you pull the airline out.
2. Remove the rear plumbing bracket located at the upper end of the Clamp Arm.
3. Slide the cylinders out of the Clamp Arm by pushing them through the top of the Upper Clamp Arm Bracket.
4. Remove the tension springs and washers by loosening the 7/16" Nylock nuts. (Fig 61)



Fig 60

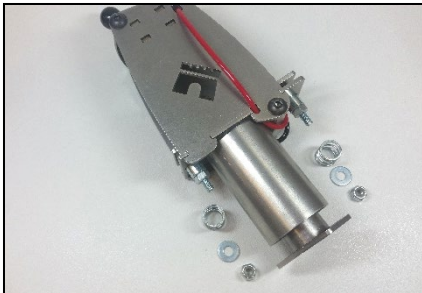


Fig 61

5. Disconnect the red hose from the top valve. (Fig 62)

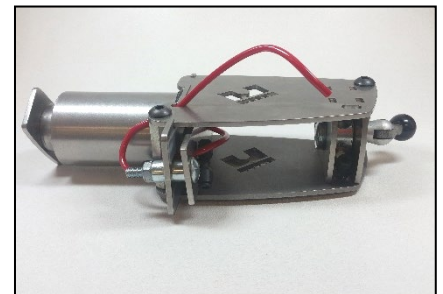


Fig 62

6. Disconnect the black hose from the top valve. (Fig 63)

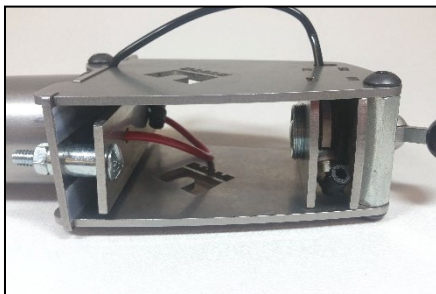


Fig 63

7. Remove the tension plate from the bottom of the interior clamp assembly. (Fig 64 & 65)

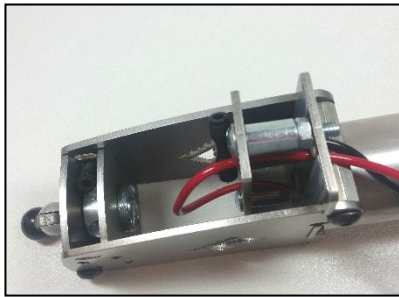


Fig 64



Fig 65

8. Remove the (2) Button Head Cap Screws from one side of the assembly. (Fig 66) Then remove assembly side and the clamp portion of the assembly. *Note the position and orientation of the Valve as you remove the valve from the retention plates.*

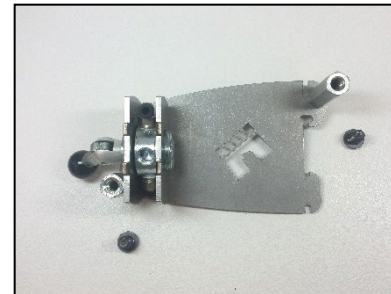


Fig 66



Fig 67

9. Remove the top plate by removing the screw on top of the cylinder assembly. (Fig 68)

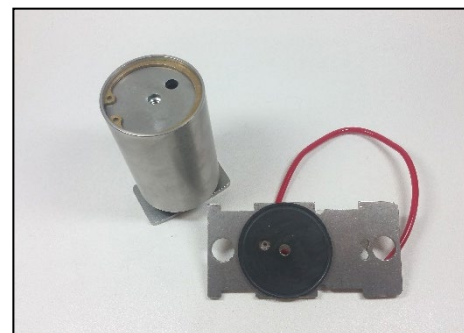


Fig 68

10. Remove the snap ring, gasket & steel washer. You may need a pair of snap ring pliers to easily remove the snap ring from the cylinder. (Fig 69)

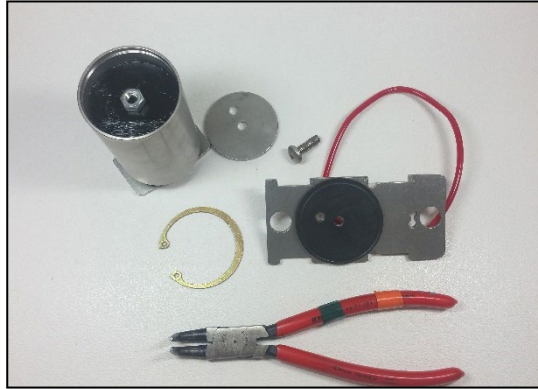


Fig 69

11. Loosen the bottom snap ring from the cylinder sleeve and push the interior cylinder assembly out of the cylinder sleeve. (Fig 70)

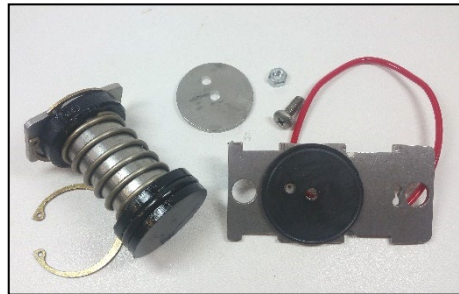
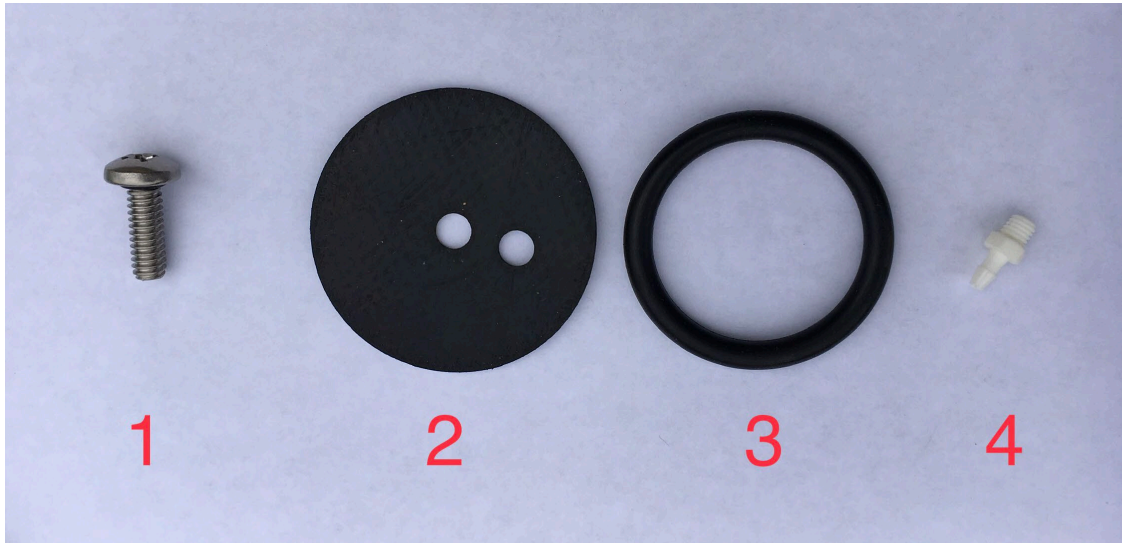


Fig 70

12. Replace the large O-ring on the piston ring.
13. Reassemble the cylinder assembly in the reverse order of these instructions.

3 AT Race Cylinder Rebuild Kit



3.1 Clamp Cylinder

Item #	Part #	Part Description	Qty
1	F48007	1/4-20 x 3/4 Sealing Philips Pan Head Machine Screw	1
2	S00048	AT Neoprene Rubber Gasket – 2"	1
4	P10316	10-32 x 3/32 White Nylon Barb	1

3.2 Cylinder Piston

Item #	Part #	Part Description	Qty
3	H32500	Buna-N O-Ring – 325	1