

# TECH TIPS

## Service Call:

**How to remove and install the gingerbread man aluminum rod.**

**How to set the gingerbread man aluminum rod and slide tension.**

## Tools Needed:

slot screwdriver  
weight scale (capable of measuring up to 25 pounds).  
3/8" drive ratchet, 12" - 3/8" swivel extension  
3/8" sockets - 9/16", 11/16", 3/4"  
9/16" wrench, 11/16" wrench, 3/4" wrench  
needle nose vise grips

## Model:

**S80/S85**



## Tech Tips Safety Rules



### **Danger**

Failure to obey the instructions and safety rules in the appropriate Operator's Manual and Service Manual for your machine will result in death or serious injury. Many of the hazards identified in the operator's manual are also safety hazards when maintenance and repair procedures are performed.

### **Do Not Perform Maintenance Unless:**

- You are trained and qualified to perform maintenance on this machine.
- You read, understand and obey:
  - manufacturer's instructions and safety rules
  - employer's safety rules and worksite regulations
  - applicable governmental regulations
- You have the appropriate tools, lifting equipment and a suitable workshop.

The information contained in this tech tip is a supplement to the service manual. Consult the appropriate service manual of your machine for safety rules and hazards.

## Step 1

Remove the cylinder assembly from the unit as per the Genie service manual.  
Remove the damaged rod and all of the components inside the rectangular tube that the rod goes through.  
Check for damage to the chrome cylinder rod and replace if necessary. Check for damage to any of the rod components and replace as necessary.



## Step 2

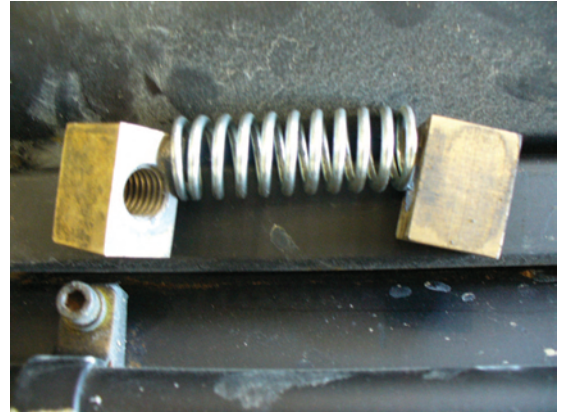
Remove the tension assembly components. Two plastic blocks, one split sleeve and two clamps.



## Step 3

Inside the rectangular tube between the two cylinders there are two blocks and one spring. This picture shows the brass blocks and spring.

It may be necessary to use compressed air to blow these parts out of the tube if the rod was damaged. They only come out the end towards the center of the cylinder assembly.



## Step 3

This picture shows the plastic blocks and spring.

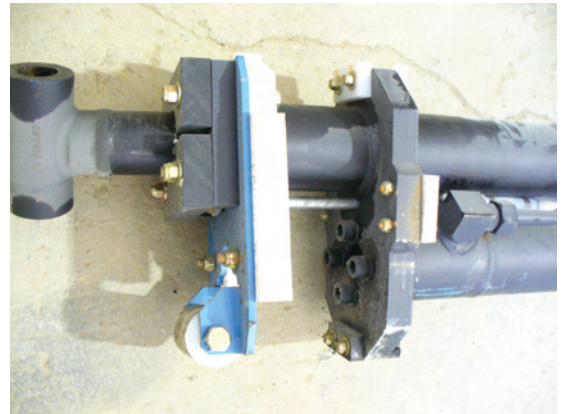
It may be necessary to use compressed air to blow these parts out of the tube if the rod was damaged. They only come out the end towards the center of the cylinder assembly.



## Step 4

If the rod was not twisted but needs replaced.

Remove the bottom rod support bracket wear pads and bracket to expose the retainer nut on the end of the aluminum rod.



## Step 5

Remove the 1/2" nut from the end of the aluminum rod. Slide the rod support bracket back on the rod or remove the remaining wear pads and bottom rod support bracket.



## Step 6

Remove the two clamps from the tension sleeve and push the aluminum rod through the cylinder end plate.



## Step 7

With the rod pushed through the cylinder end plate it will expose the rod with the blocks and spring out the end of the rectangular channel in the center of the cylinder assembly.

This shows the outer block with retainer nuts installed. These may not be present.

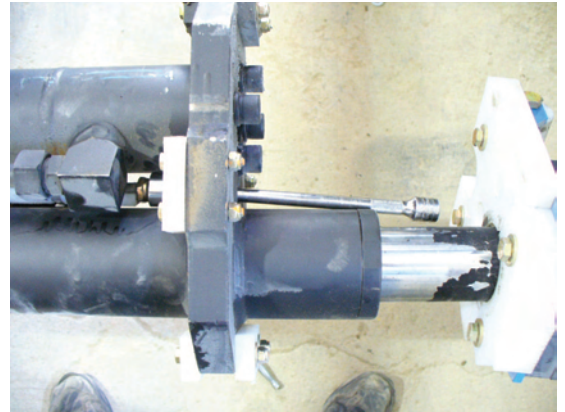


## Step 8

With the rod pushed back through the end plate thread on two nuts to allow you to remove the blocks from the other end of the rod.

You may need a helper to hold the blocks from turning on the other end of the rod.

Once the blocks and spring are removed from the end of the rod take off the two nuts and remove the rod from the assembly through the hole in the the cylinder end plate.



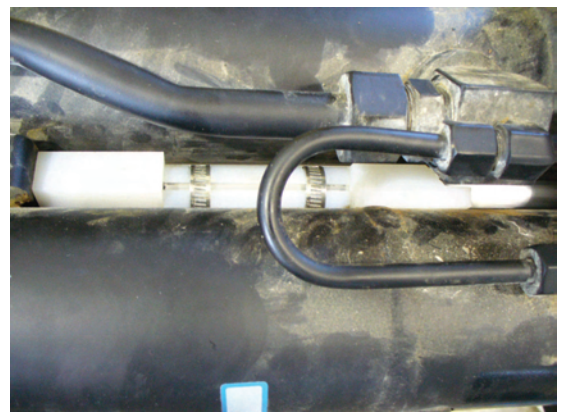
## Step 9

Install the new aluminum rod back into the cylinder assembly with the tension blocks and sleeve in place. The clamps must be loose.

If the rod has different lengths of threads on each end install the end with more threads into the channel.

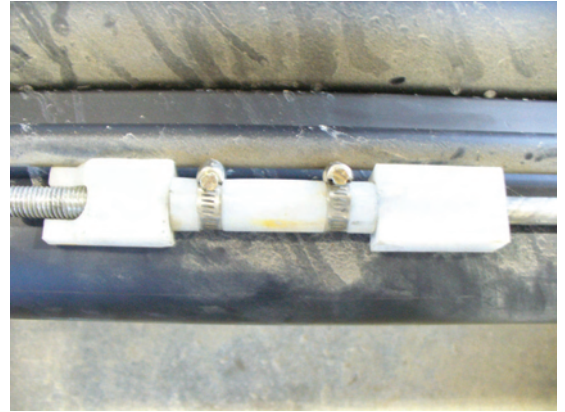
**DO NOT USE ANY LUBRICANT ON THE ROD.**

The block with the notch at end is for clearance on a weld filet. It goes towards the end of the cylinder assembly. See the next picture for clarification.



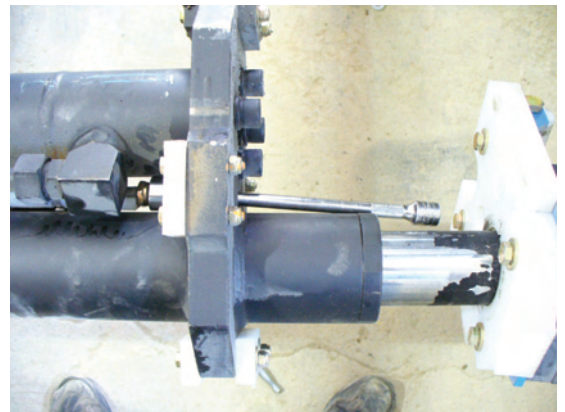
## Step 9

The block with the notch is on the left side of the picture. The notch provides clearance for a weld at the end of the cylinder assembly.



## Step 10

Thread the nut back on the end of the rod at the end of the cylinder as you did for the disassembly.





## Step 10

Install the blocks on the end of the rod. Use the pictures shown in Step 3 to ensure you have the blocks installed correctly.

If the brass blocks are being used they should be installed with a thread locker and/or jam nuts as shown.

Have a helper thread the blocks on by turning the rod from the other end with the socket.



## Step 10

When the blocks are installed they should not protrude out of the rectangular tube. If the end block is even with the end of the rod it should be sufficient.



## Step 11

Remove the nut from the end of the rod and pull it back through the cylinder end plate.

Re-install the nut on the end of the rod and tie the spring tension gauge on the end of the rod. Pull the rod straight not at an angle.



## Step 11

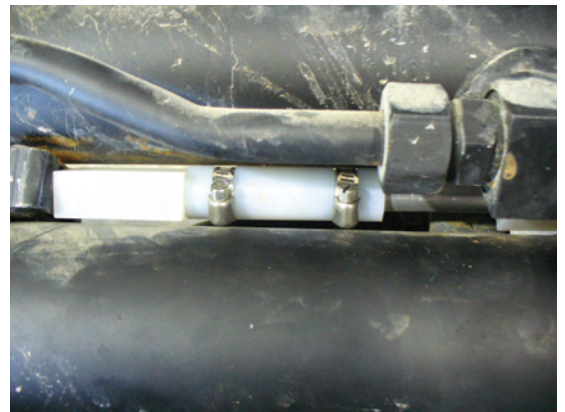
Adjust the clamps around the tension sleeve while your helper is pulling on and observing the spring tension gauge. You want to adjust the clamps to achieve 18 - 22 pounds of tension.

**DO NOT LUBRICATE THE ALUMINUM ROD.**

The tension adjustment is critical.

If the adjustment is too tight it may bend the aluminum rod when retracting the boom.

If the adjustment is too loose the rod may break when the boom is extended.

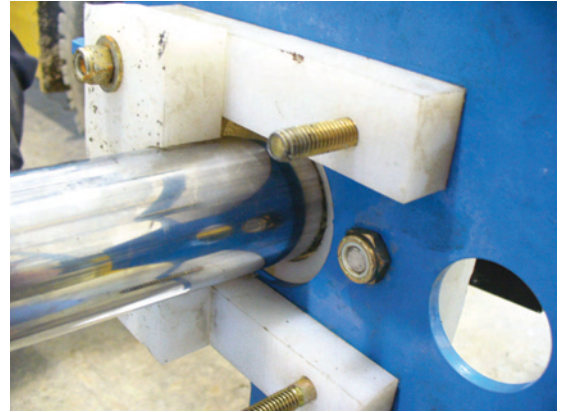


## Step 12

Remove the gauge and the nut from the end of the rod.

Reassemble the bottom rod support bracket and install the nut. An additional nut may be installed prior to feeding the aluminum rod through the hole to sandwich the bracket. Tighten a new locknut on the rod. Be sure that the rod threads protrude through the locknut for effectiveness.

If the threads are not protruding through the nut screw the internal nut on further.



## Step 13

Reinstall the wear pads on bracket.

Reinstall the cylinder assembly in the unit as per the Genie service manual.

