

ABM International, Inc.

EZ-Lock Assembly Manual

EZ-Lock Parts List -

Structural frame profiles –

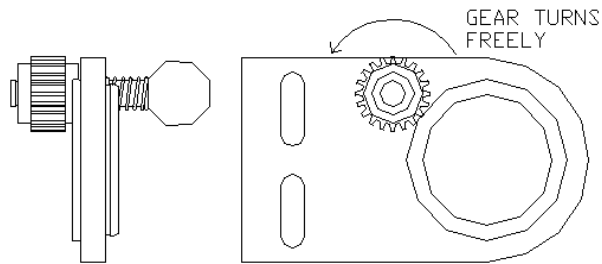
Slotted beam:



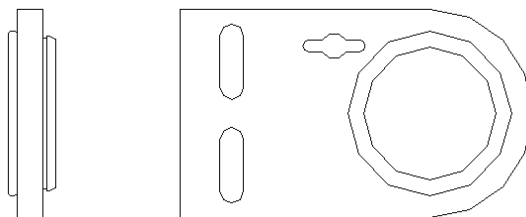
(Qty. 2) 15.75”

Commercial Parts -

Liner roller and take-up roller end plate with gear assembly (Qty. 2)



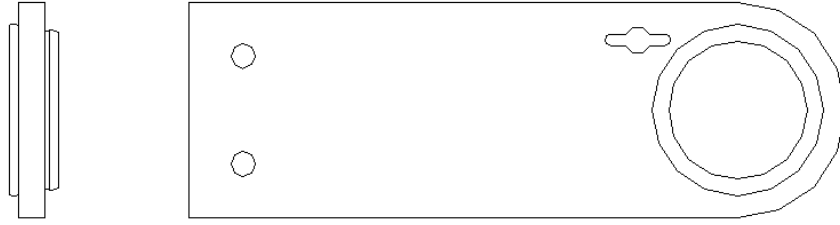
Liner roller, take-up roller, and bed roller end plate (Qty. 4)



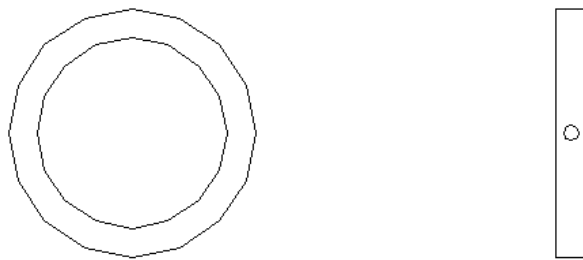
Top fabric roller end plate with gear assembly (Qty. 1)



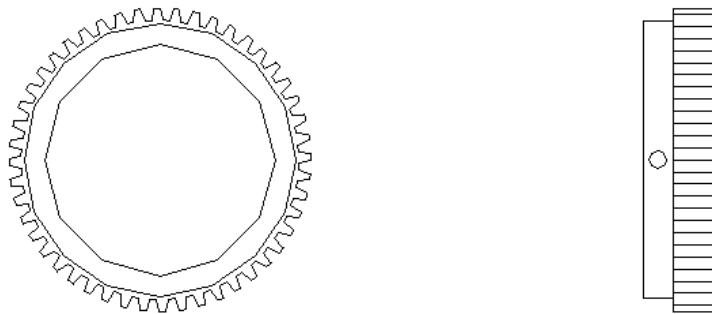
Top fabric roller end plate (Qty. 1)



Roller collar (Qty. 5)



Roller gear (Qty. 3)



5/16 Double T-nut (Qty. 6) *pictured with bolts installed*



Commercial Parts -

Bolt kit –

Hex head cap screw:



(Qty. 12) 5/16 x 1"
(Qty. 4) 5/16 x 2-1/2"

Flat washers:



(Qty. 20) 5/16

Lock washers:



(Qty. 12) 5/16

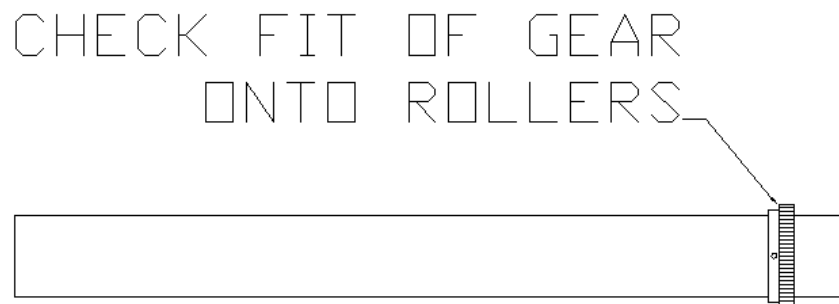
Nylon insert lock nuts:



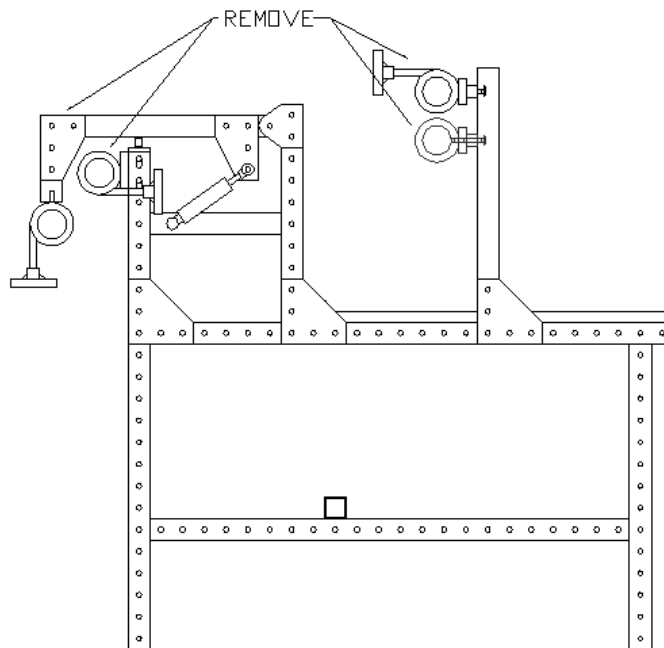
(Qty. 4) 5/16

IMPORTANT NOTE:

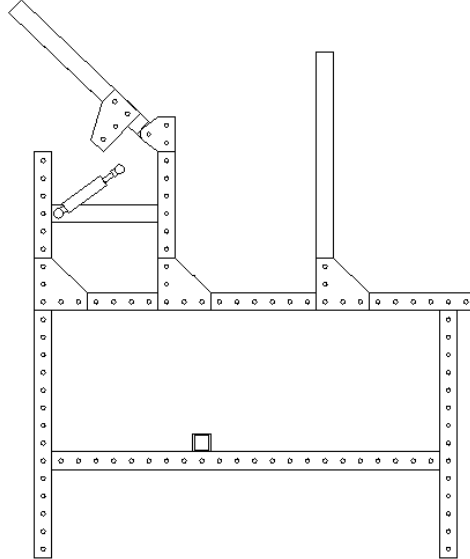
PRIOR TO REMOVING ALL OF THE COMPONENTS OFF OF YOUR PRO FRAME, PLEASE CONFIRM THAT THE NEW GEARS AND COLLARS WILL FIT ONTO YOUR EXISTING ROLLERS. YOU MAY HAVE TO DEBURR OR POLISH THE ENDS OF THE ROLLERS TO MAKE THE COLLARS AND GEARS FIT PROPERLY. TO CHECK FOR PROPER FIT, TRY TO INSTALL A GEAR ON ONE END OF EACH ROLLER. IT SHOULD SLIDE ONTO THE ROLLER WITH LITTLE EFFORT. DO NOT HAMMER OR POUND THE GEARS OR COLLARS ONTO THE ROLLERS.



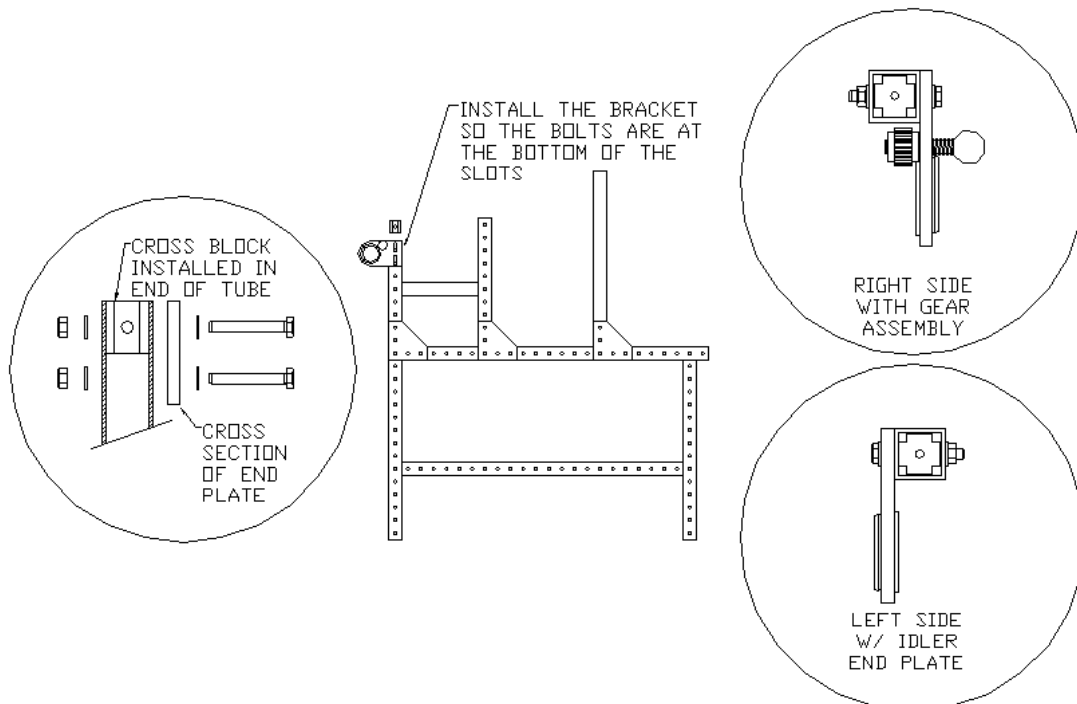
Step 1: Remove the rollers and collar brackets off of both ends of the frame. If you have a cross hatch ruler installed, do not remove the crosshatch bar and brackets.



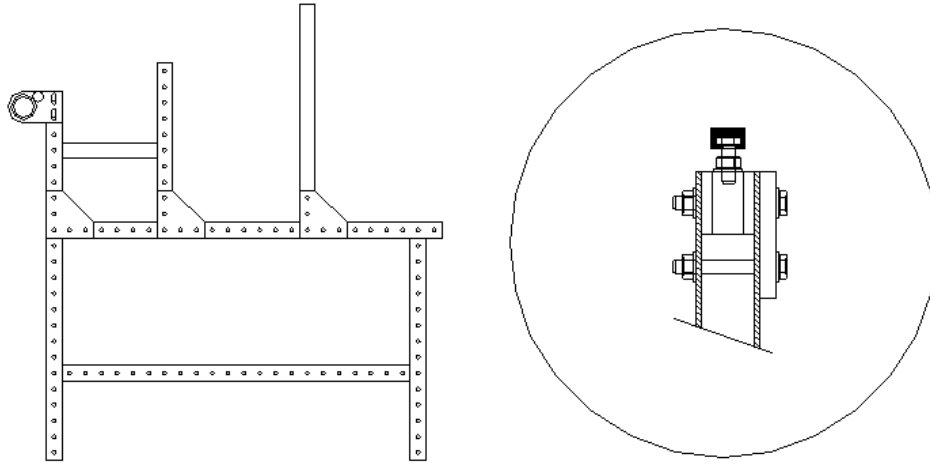
Step 2: Tilt the lifting bar arm up and remove the nut holding the upper ball mount of the gas spring to the 4-hole bracket. Remove the 15" tilting bar, 4 hole bracket and pivot nub from each frame side. **DO NOT LOSE THE (2) 3/8 SHOULDER BOLTS AND (2) PLASTIC WASHERS BETWEEN THE PIVOT PLATES.**



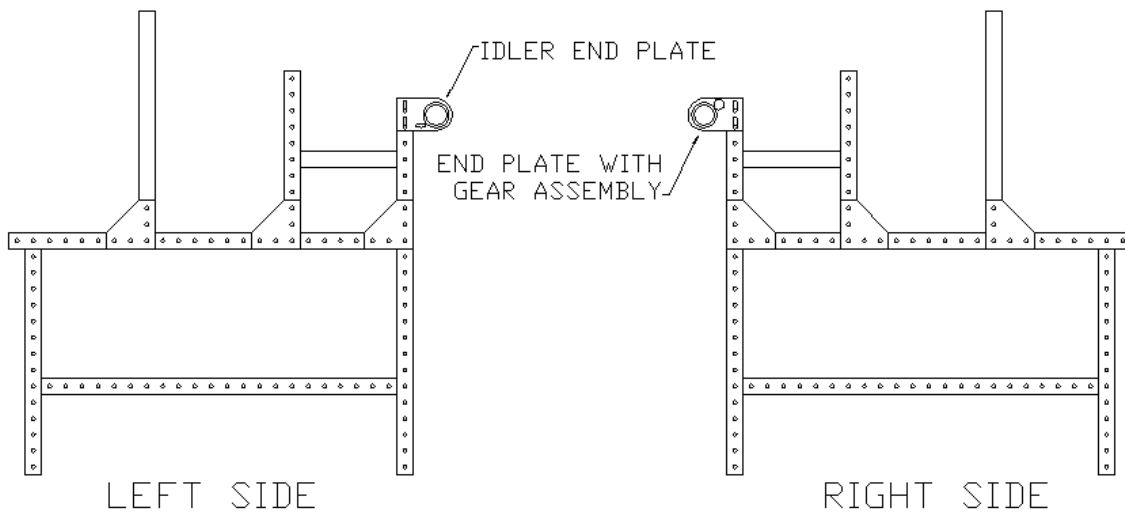
Step 3: Install the liner roller end plate with gear assembly into top end of 34.5" tube (also install a cross block into the end of the tube). Use (2) 2-1/2" hex bolt, (4) flat washers, (2) nylon lock nuts. The balloon on the left illustrates how to install the cross block into the tube end. The balloons on the right show a top view of the 34.5" tube with the liner roller support bracket installed correctly. **NOTE: THE LINER ROLLER END PLATES ARE ORIENTED DIFFERENTLY DEPENDING ON WHICH END YOU ARE WORKING ON. THE END PLATE WITH THE GEAR ASSEMBLY MUST BE INSTALLED ON THE RIGHT SIDE. CALL ABM IF YOU WANT TO MOUNT THE GEAR ASSEMBLY ON THE LEFT END.**



Step 4: Install (1) 1" hex bolt, (1) hex nut, and (1) flat washer into the end of the cross block. Install rubber cap onto head of hex bolt.

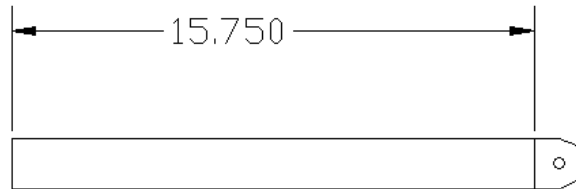


Step 5: Completed pro-frame left and right side rail support assemblies.

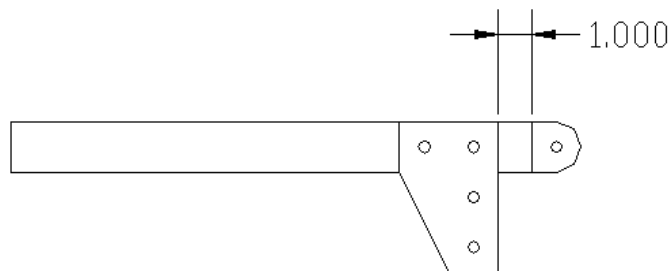


NOTE: MAKE ONE LEFT AND ONE RIGHT HAND ASSEMBLY

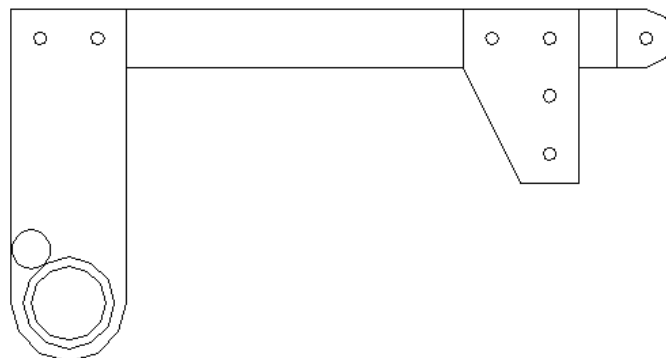
Step 6: Remove the pivot nub from the original 15" slotted beam and install it onto the threaded end of 15-3/4" slotted beam – only one end of the beam is threaded. Use bolt with supplied nub.



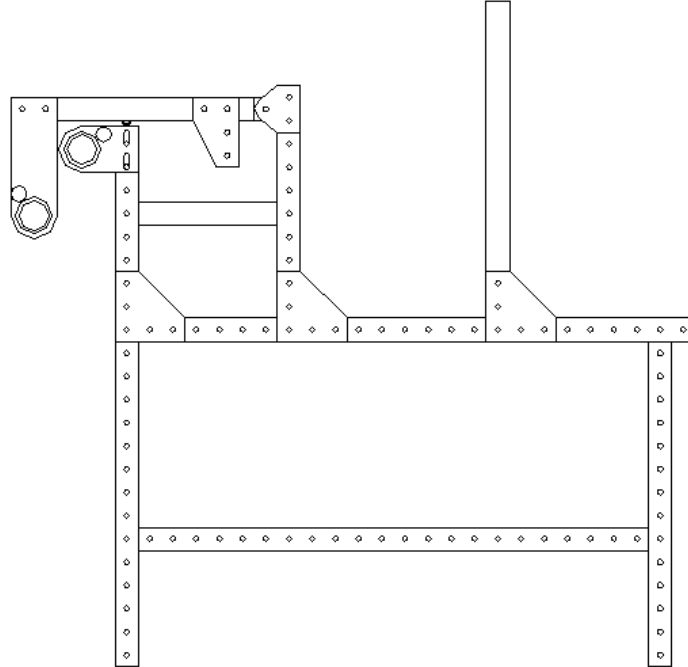
Step 7: Install 4-hole gusset plate onto 15-3/4" slotted beam approximately 1" from end with nub. Use (2) 3/4" hex bolts, (2) lock washers, and (1) double T-nuts. **NOTE: MAKE SURE TO ASSEMBLE (1) LEFT AND (1) RIGHT ASSEMBLY**



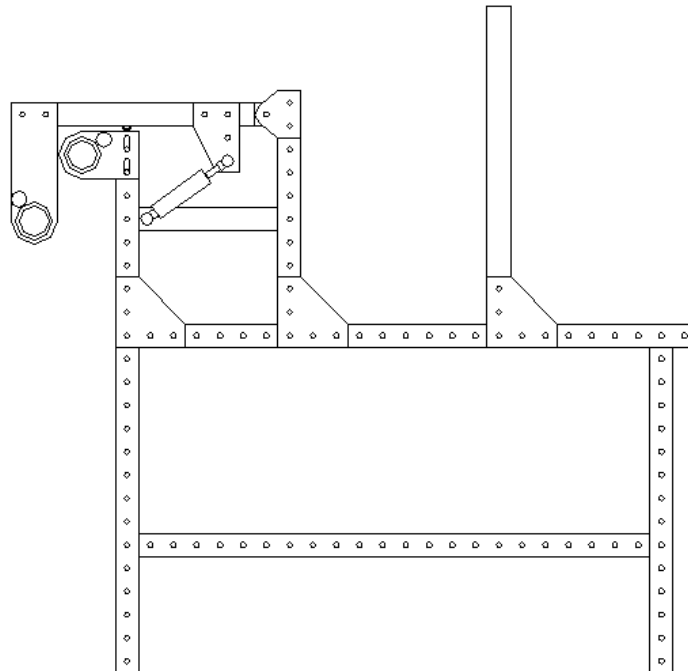
Step 8: Install top fabric roller end plate with gear assembly onto open end of 15-3/4" slotted beam - flush to end. Use (2) 1" hex bolts, (2) lock washers, (2) flat washers, and (1) double T-nut.



Step 9: Install pivot roller assembly onto 15" perforated tube located on side frame assembly. Use the original (2) 3/8 shoulder bolts, (2) plastic washers. Adjust the height of the rubber capped hex bolt so the 15-3/4" beam is level to the ground.

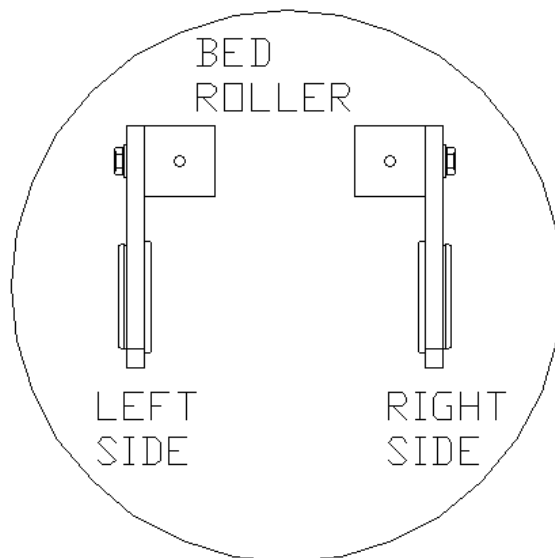
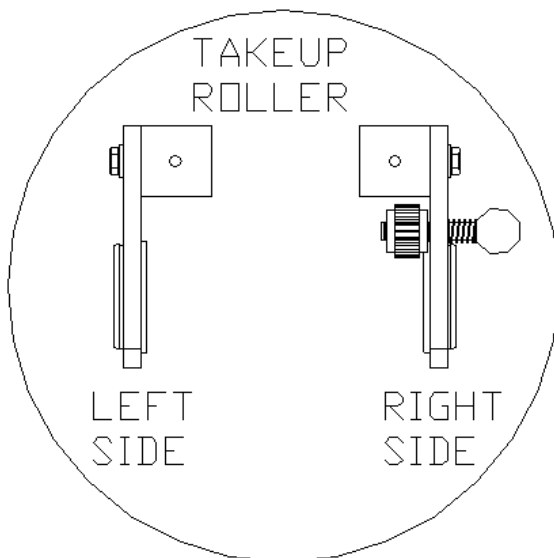
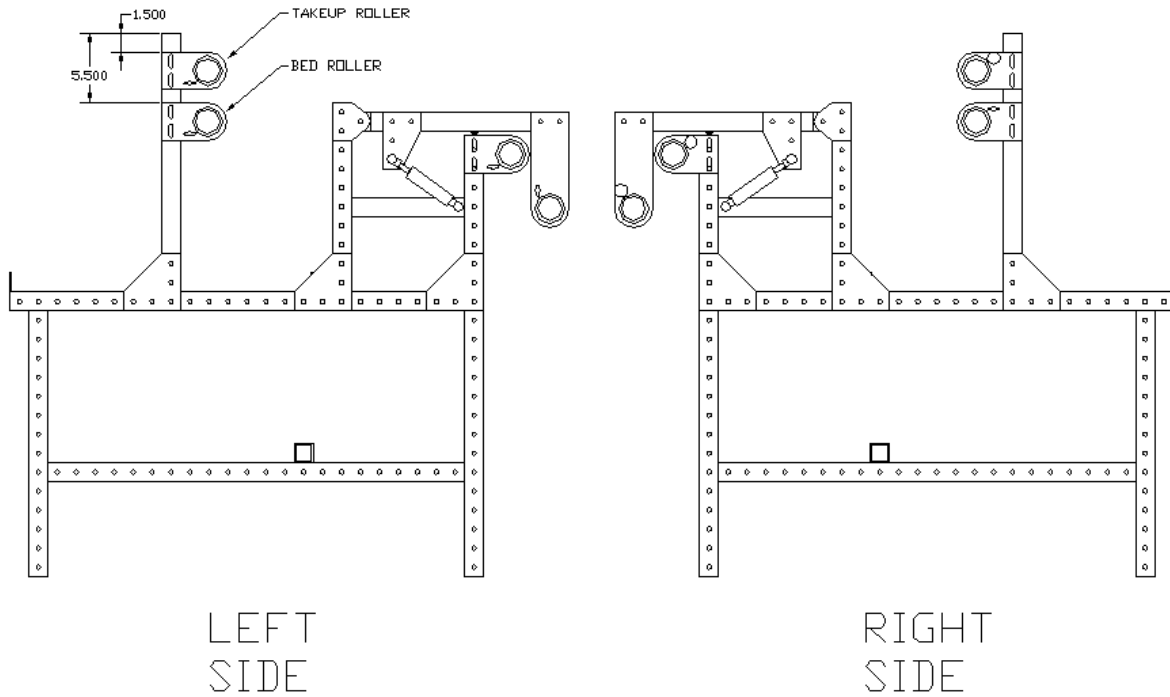


Step 9: Attach gas spring upper ball joint to 4 hole gusset plate and secure with (1) nylon lock nut.



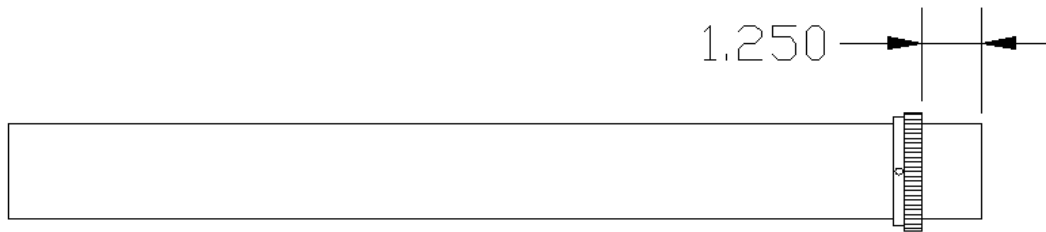
NOTE: IF YOUR INNOVA CAME WITH A CROSS HATCH RULER DO NOT INSTALL THE BED ROLLER END PLATES OR THE BED ROLLER.

Step 10: Install the take up and bed roller end plates onto the 20.5" vertical beams. Make the take up roller end plate 1-1/2" from the top of the beam and set the bed roller plate at 5-1/2" from the top of the beam. Use (2) 5/16 x 1" hex bolts, (2) lock washers, (2) flat washers, and (1) 5/16 double t-nut per plate.
NOTE: MAKE SURE TO INSTALL THE TAKEUP ROLLER END PLATE WITH GEAR ASSEMBLY ON THE RIGHT SIDE OF THE MACHINE.

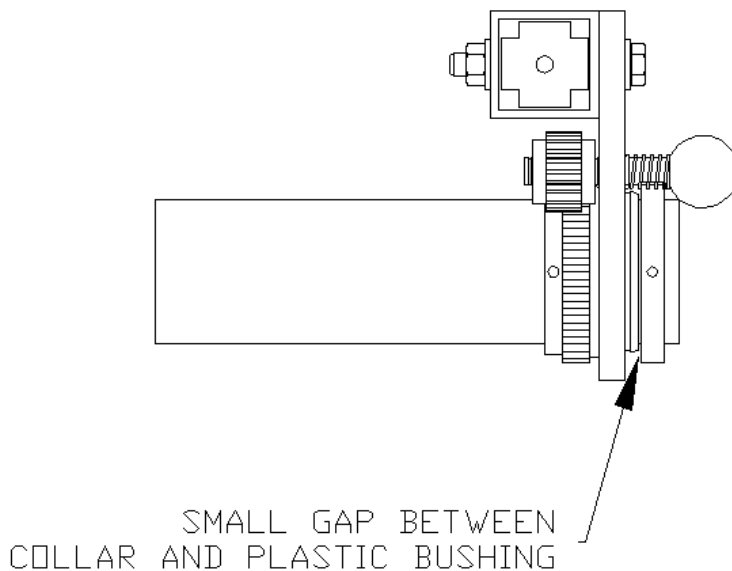


Step 11: Wipe down all (4) rollers with a cloth and some mild detergent to remove all oil films, dirt and grit.

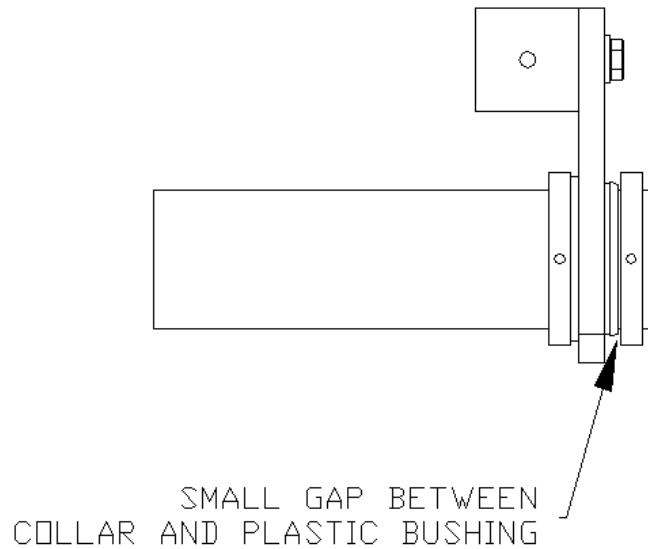
Step 12: Install the (3) roller gears, hub first, 1-1/4" off the right end of (3) roller tubes. Tighten all (3) set screws on each gear equally. **NOTE: MAKE SURE THE (3) SET SCREWS OF EACH GEAR ARE NOT POKING OUT ON THE INSIDE. THIS WILL MAKE INSTALLATION IMPOSSIBLE. THE GEAR INNER DIAMETER IS A CLOSE FIT TO THE TUBES. THE TUBES HAVE BEEN CHECKED AND DEBURRED TO INSURE THAT THE GEAR FITS PROPERLY. DO NOT HAMMER THE GEAR ONTO THE ROLLER END. IF ALL ELSE FAILS TURN THE ROLLER AROUND AND TRY THE OTHER END.**



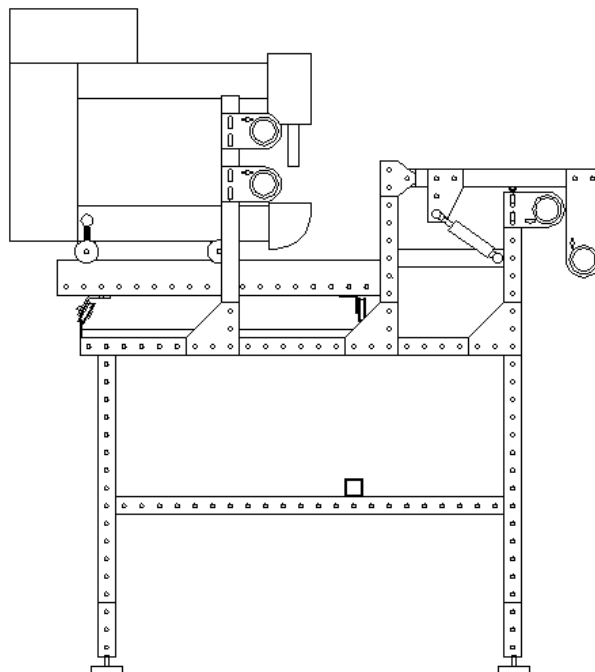
Step 13: Install the (3) rollers with gears into the roller end plates and make sure the gears on the rollers are facing the end plates with the gear assemblies. Install a roller collar onto the tube end and tighten the (3) set screws on the collar. **NOTE: MAKE SURE TO LEAVE A SMALL GAP BETWEEN THE COLLAR AND THE PLASTIC BUSHING. THIS WILL HELP MAKE SURE THE ROLLER TURNS SMOOTHLY. CHECK ALL (3) ROLLERS TO INSURE THEY TURN SMOOTHLY. THEY SHOULD ONLY TURN ONE WAY.**



Step 14: Install the bed roller into the roller end plates and install the (2) collars, one on either side of the plate, as shown below. Tighten the (3) set screws on each of the collars. Check to make sure the roller turns freely.



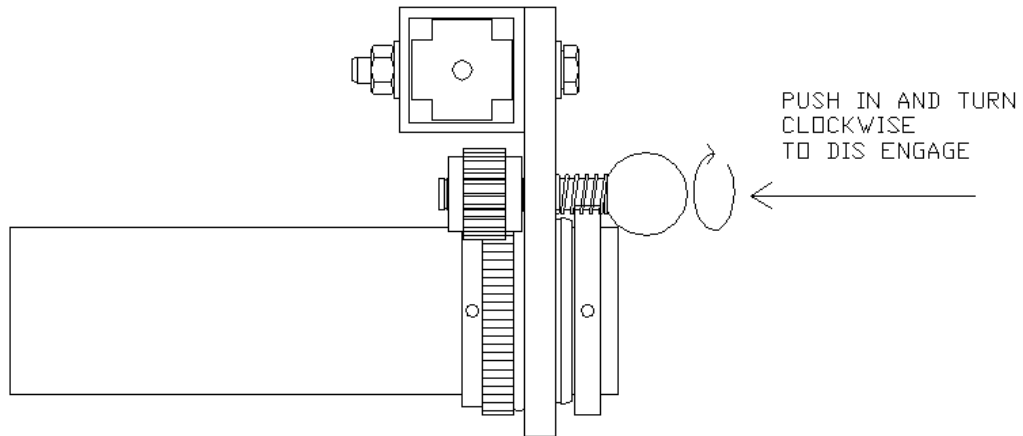
Step 15: Check to make sure all of the rollers turn freely and that the roller locks engage and disengage.



EZ-lock Operation:

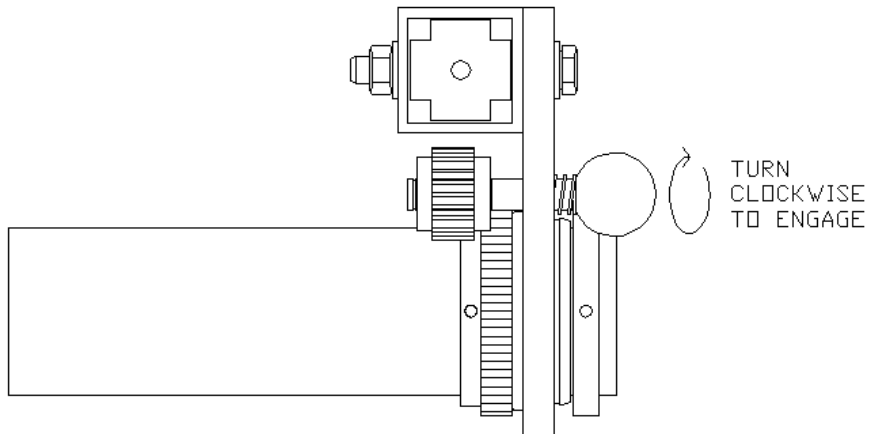
Disengaging the lock:

To disengage the locking mechanism push the red knob in compressing the spring and turn the knob clockwise 90 degrees. If the material is under heavy tension, you may have to turn the roller slightly to relieve some locking force which will make pushing the knob in easier.



Engaging the lock:

To engage the locking mechanism, turn the red knob clockwise until small gear engages the large gear completely.



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