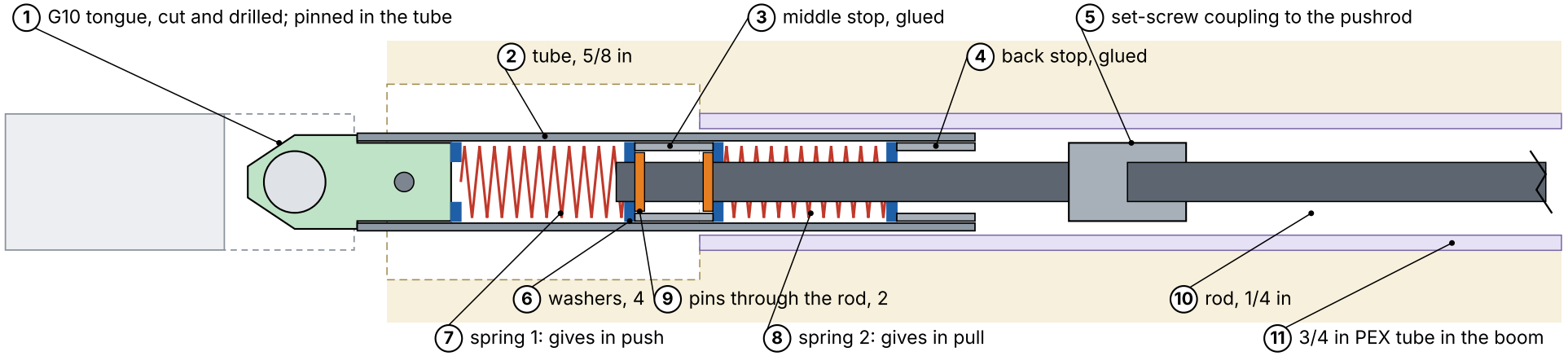
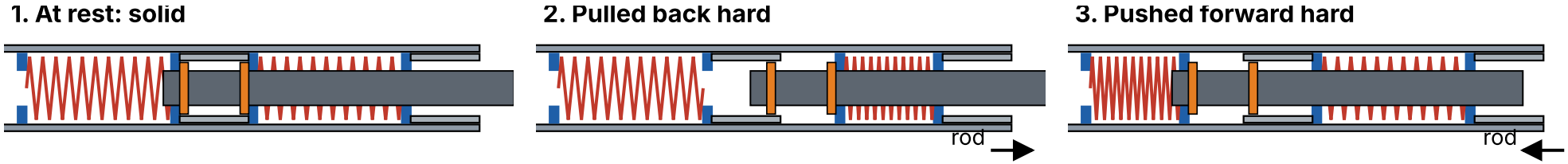
SPRING LINK FROM CUT AND DRILLED BOUGHT PARTS

inches

Oct 29, 2026 · proposed, not decided

The change from the Trim Guide's link: two springs instead of one, one for push and one for pull. Then each washer stops against a plain piece of tube glued inside, and nothing needs a lathe. Every part is bought and only cut, drilled or glued.





How it gives: each washer is pressed onto the middle stop by its own spring, with a pin through the rod right behind it. Pulled harder than 4 lb, the back pin drags its washer back and squeezes spring 2; the front washer stays on the stop. Pushed, the front pin squeezes spring 1. When the wind eases it springs back. Each spring is squeezed from 2 in to 1.05 in for 4 lb; at the 0.4 in the flap needs to go straight it pushes 5.7 lb, under 1-1/2 times the start. About 5.7 in from the front pin to the end of the coupling.

	PART	WHAT IT DOES	WHERE TO BUY
1	**G10 tongue**	From the 1/4 in sheet on hand, sanded to about 0.22 in where the actuator's fork goes. Its back half slides into the tube; one 1/8 in pin through tube and tongue holds it.	On hand
2	**Tube, 5/8 in, 0.049 in wall, 316, cut to about 4 in**	The body.	Amazon, VALVENTO 12 in, 2 pack
3, 4	**Tube, 1/2 in, 0.049 in wall, 316: two 1/2 in long pieces**	The middle stop and the back stop, glued inside the 5/8 in tube.	Online Metals (not on Amazon in this wall)
5	**Set-screw coupling, 1/4 in to 1/4 in, stainless**	Joins the link's rod to the pushrod, no threads to cut.	Climax RC-025-S, 303 stainless (seller to pick; Amazon has only aluminum ones)
6	**Washers AN960C416: 0.265 in hole, 1/2 in across, 18-8**	Four.	Aircraft Spruce, $0.21 each
7, 8	**Springs, 0.48 in across, 2 in long, 4.2 lb per inch**	Two, one each way.	Penn Tool 03308525, 10 for $13.65
9	**Dowel pins 1/16 × 3/8 in, 316**	Two, pressed into holes drilled across the rod.	Amazon, 100 pack
	Dowel pin 1/8 × 1 in, 316	Holds the tongue; cut and sand flush.	Amazon, 100 pack
10	**Rod, 1/4 in 316, about 4-1/2 in**		On hand
11	**3/4 in PEX, about 10 in**	The link is only 5/8 in across now, so the boom's tube shrinks from the 1 in CPVC.	Any hardware store