Equipment:	Torsion Balance	Type:	788 & 789A,B,C
Balance Unit for balancing Loading Arms			
Suitable for: Loading Arm Balancing			
• Maintenance free			

Specifications

Type	**: Right-Hand: 788(blue), 789A(white), 789B (yellow), 789C(red)** **: Left-Hand: 788LH(green), 789ALH(black), 789BLH(gray), 789CLH(orange)**
Working Temperature Range	: -4°F - 176°F (-20°C to +80°C)

Installation

	Spring Unit Assembly
	1. Remove the 6 Screws [18] of Cover [19] (if attached) 2. Position balance unit on the 3 bosses at back of swivel joint 3. Fix balance unit with three Bolts [3] and Lock Washers [4] 4. Attach backside of Lever [7] to Spring Arm [6] with Pin [9] and 2 E-rings [8] 5. Remove the 2 Bolts [15] and take Snubber Block [13] off 6. Raise loading arm to highest position (as vertical as possible) 7. Attach front side of Lever [7] to mounting ears on loading arm with Pin [24] and 2 E-rings [23] 8. Check balancing action by pulling down the arm. If adjustment is necessary, follow adjustment instructions below 9. Install lock-down unit 788-L, if used, by following 788-L installation instructions 10. Replace Cover [19] with the 6 Screws [18]

Adjustment

Travel Stop

Upward
Remove the (4) socket head screws in snubber block, then rotate snubber block toward pivot pin to allow for more upward travel or away from pivot pin for less upward travel. Replace the (4) screws and tighten

Downward
Loosen Jam Nut (located below lever arm) and turn stop bolt in for more downward travel or out for less downward travel. Then hold bolt and tighten jam nut securely

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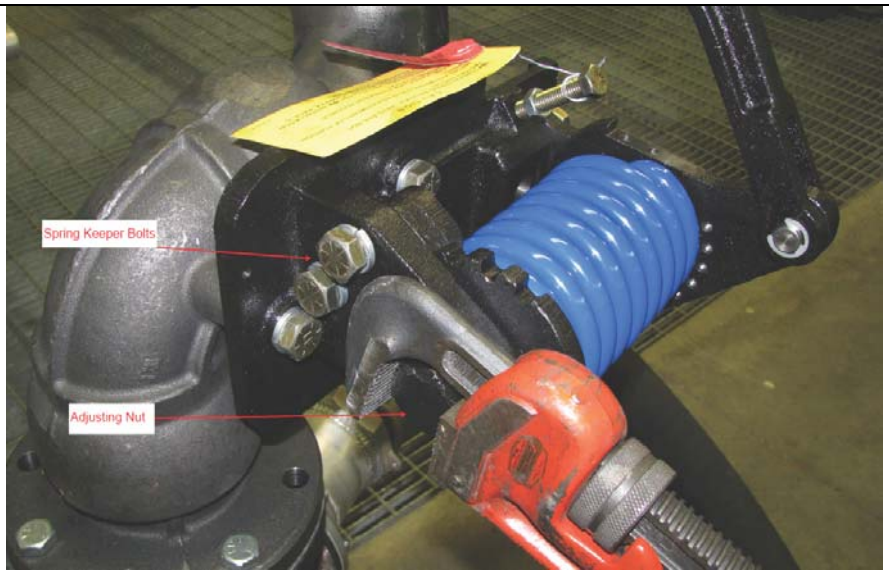
Adjustment (cont.)

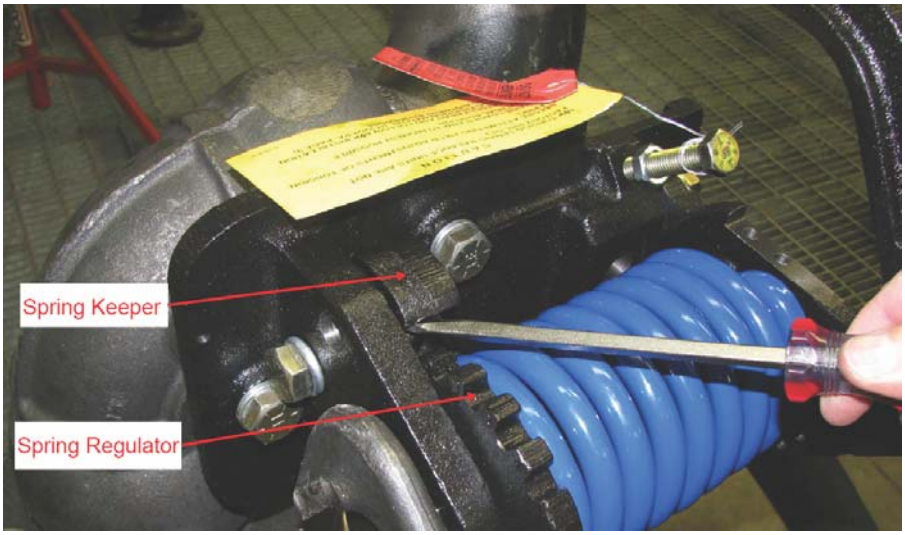
TORQUE

For more lifting action increase torque. For less lifting action decrease torque.

1. Raise loading arm to highest position and secure.
2. Hold Adjusting Nut of Spring Regulator [2] with a large wrench.



3. Loosen lower Bolt of Spring Keeper and remove upper one. Using a large screwdriver push Spring Keeper forward. With Spring Keeper disengaged turn Spring Regulator Adjusting Nut clockwise for more or counter clockwise for less torque.
4. With spring tension in desired position press Spring Keeper back into position on Spring Regulator. While holding Spring Regulator Adjusting Nut, tighten Spring Keeper Bolts [3]. Be sure Lock Washers [4] are in place.
5. Minor adjustment can be achieved by turning the Spring Keeper ½ position. This is done by removing the 2 Keeper Bolts [3] and turning the Spring Keeper end for end, so that the "teeth" of the Spring Keeper will be reversed.



Maintenance

Lubrication	The torsion balance is provided with a self-lubricating Bearing. Only when operating under severe conditions, a little oil may be applied to Bearing. Pins on Spring Arm and Lever should have some oil quarterly.

DANGER

Danger! Before performing any maintenance, always secure the Loading Arm and remove all tension from the counterbalance -- a torsion spring. The Loading Arm counterbalance spring contains a substantial amount of stored energy. You must relieve this energy before any disassembly. Failure to remove all tension from the counterbalance spring of the Loading Arm before maintenance may cause serious personal injury or death. Consult *Loading Arm Installation, Maintenance & Safety Manual* for more information.

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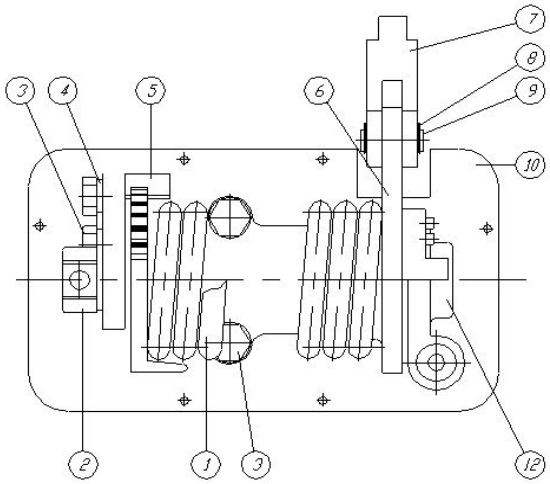
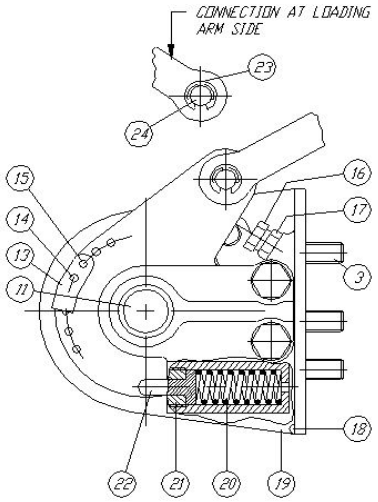
Bill of material

No	Part	
1	Torsion spring	
2	Spring regulator	
3	Bolt	
4	Lock washer	
5	Spring keeper	
6	Spring arm	
7	Lever	
8	E-ring	
9	Pin	
10	Support bracket	
11	Bearing flange	
12	Side support	
13	Snubber block	
14	Lock washer	
15	Bolt	
16	Bolt	
17	Nut	
18	Screw	
19	Cover (NOT SHOWN)	
20	Spring compression	
21	Snubber retainer	
22	Snubber plunger	
23	E-ring	
24	Pin	





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