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TECHNICAL SERVICE BULLETIN

DATE: 11/7/2019

TSB # TSB201902

RE: Adjusting hydraulic tensioning system pressure

Model: OLB840

Model Years: 2017-2020

Production Build Dates: July 2017 – Sept 2019

We have identified that depending on the truck hydraulic system the pressure can rise effecting the tension of the live bottom belt system. If the pressure is not correctly adjusted damage to the live bottom belt system will occur. The following procedure should be used to properly adjust the hydraulic tensioning system.

The repair will take 2 hours. Contact Trail King Material Hauling Customer Service for authorization for repair.

Material Hauling Customer Service can be reached at 1-800-762-5557

Please see the Technical Service Bulletin attached for the instructions for the repair.

Ty Hanten

**Director of Quality
Trail King Industries Inc.
Mitchell, SD 57301**

External Factors that Affect System Pressure:

There are several things that could move the system pressure outside of the acceptable operating range. There are two categories that affect the operating pressure: a) hydraulic system components and b) truck operating parameters.

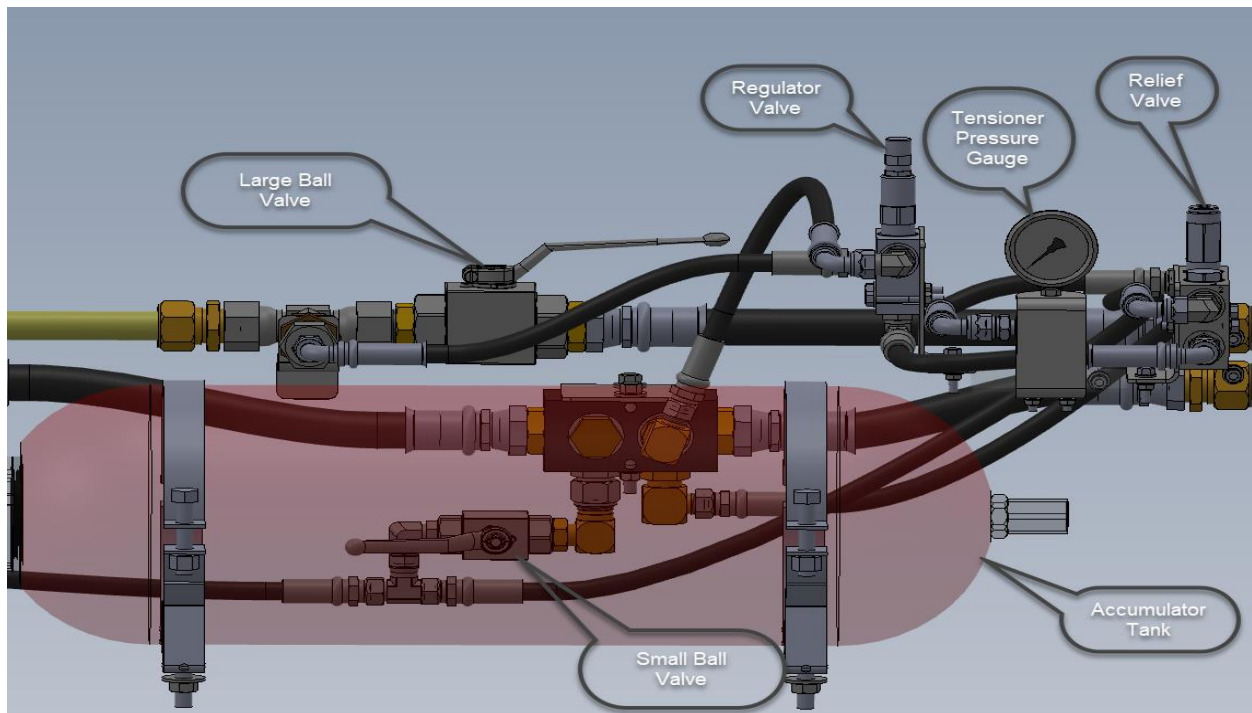
- a) Any changes to the standard hydraulic system components or variation from the Trail King recommended components could have an effect on the system pressure. For example: changes to the supply/return hose size or changing from the standard wing couplers to quick connect couplers.
- b) The truck operating parameters could also have an effect on the performance of the hydraulic tensioner system if they differ from the Trail King recommendations. For example: the amount of flow being put out by the truck pump being too high.

All Trail King recommendations for pump performance and hydraulic system components are located in the owner's manual as well as at the end of this document.

WARNING

Before performing any steps below. Make sure trailer hydraulic hoses are connected to the trucks hydraulic system and the conveyor control lever at the rear of trailer is in the neutral position. Do not operate the conveyor while pressure is relieved from the tension system. Failure to do so may and will cause damage to the conveyor frame and/or chain assembly.

Hydraulic Tensioner Components Description

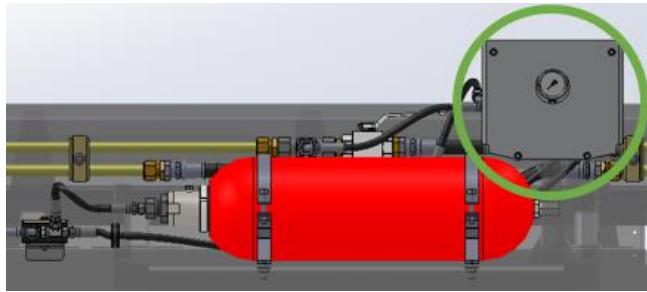


Adjusting Hydraulic Tensioner Pressure Relief Valve

The following instructions are to be used to adjust the hydraulic tensioner system pressure to the standard system pressure so that the trailer will operate in the optimal pressure range. Note: the following instructions are for adjusting hydraulic tensioner system pressure only and any trailer maintenance should be done with the system pressure fully relieved and the trailer empty.

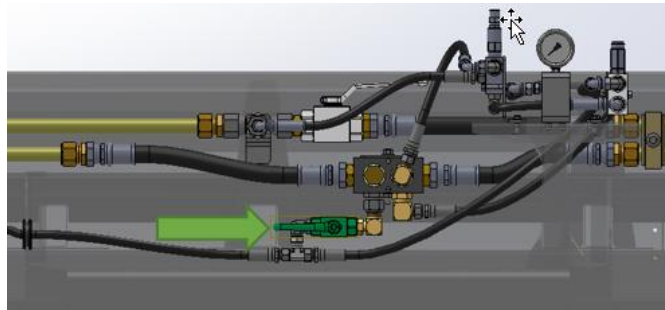
- 1) Remove the aluminum valve box that covers the pressure gauge and the hydraulic tensioner system valves (Figure 1).

Figure 1: Aluminum Valve Box



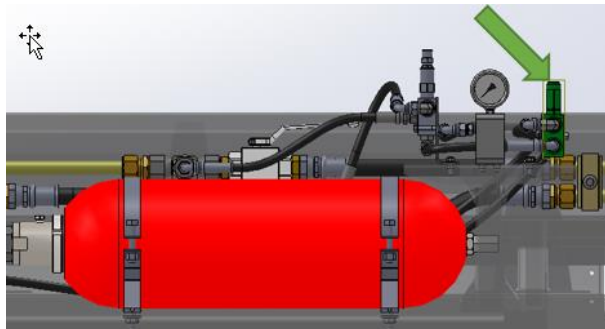
- 1) Relieve the pressure in the hydraulic tensioning system by opening the small ball valve (Figure 2) that is located behind the hydraulic accumulator tank. Leave valve open until further instructed to close.

Figure 2: Small Ball Valve (Accumulator Hidden)



- 1.) Locate pressure relief valve (Figure 3)

Figure 3: Relief valve



WARNING

(Be sure the gauge in the hydraulic systems read 0psi before removing the adjustment screw cap. Some oil will drain during the following steps. Be sure truck PTO is disengaged)

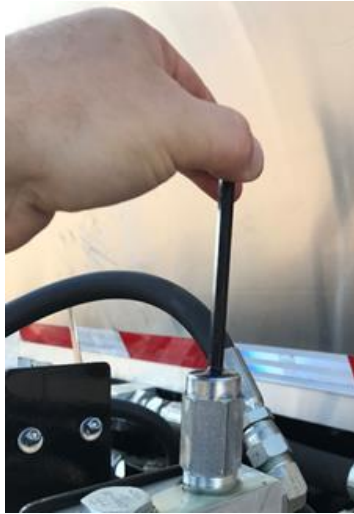
Adjusting pressure of OLB chain tensioning system

2.)

Remove the cap that covers the adjustment screw on the pressure relief valve.



3.) Turning counterclockwise. Turn adjustment screw 4 ¼ revolutions. Then re-install relief adjustment screw cap

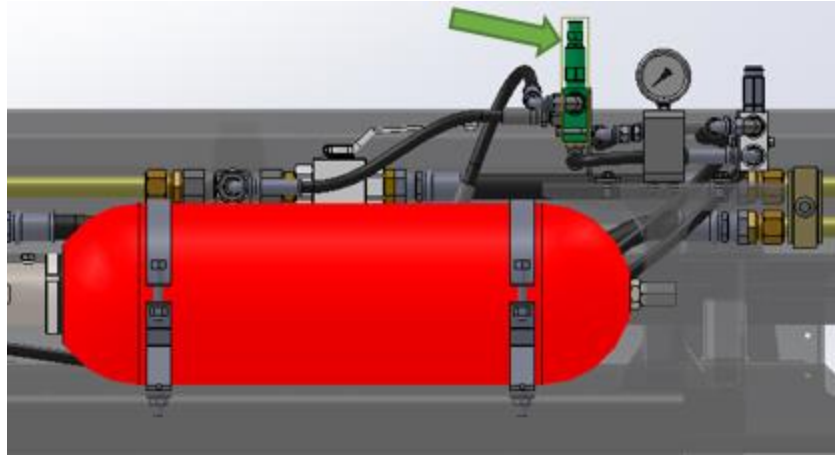


- 1.) With the cap reinstalled on the pressure relief valve and the small ball valve located behind the accumulator open. Engage truck PTO. Allow hydraulic system to circulate for 1 minute to allow any air to drain from system.
(Do not operate conveyor at this time)
- 2.) With truck PTO still engaged close the small ball valve behind the accumulator tank. (Figure 4)
- 3.) Slowly close the large ball valve above the accumulator tank until the in line pressure gauge at the front drivers side of the trailer reaches 2000psi. Hold valve at this position for 5 seconds then reopen .
- 4.) Repeat step 3.) three times
- 5.) Pressure in the tensioning guage should read 1500psi +/-25psi.
- 6.) If presuure is not in this window. Depressurize the sytem and and repeat steps above only tuning the ajustment scew in small increments. 120psi per 1/4 turn. Clock wise to increase counterclock wise to decclease pressure.
(Note: The trucks PTO must be disengaged and the tenstioning system must be de pressurized before making adjustments to the relief valve)

Adjusting Hydraulic Tensioner Pressure Regulator Valve

- 1.) Locate pressure regulator valve (Figure 4.)

Figure 4: Pressure Regulator Valve



- 2.) Remove pressure regulator adjustment screw cap
- 3.) Loosen jam nut on adjustment screw. And turn adjustment screw $1 \frac{3}{4}$ turn counterclockwise. Then snug jam nut to base of adjustment screw. Reinstall adjustment screw cap.



Pressurize the tensioning system and check regulator setting

- 1.) Open the small ball valve located behind the accumulator. Engage truck PTO. Allow hydraulic system to circulate for 1 minute to allow any air to drain from system. *(Do not operate conveyor at this time)*
- 2.) With truck PTO still engaged close the small ball valve behind the accumulator tank.
- 3.) Slowly close the large ball valve above the accumulator tank until the in line pressure gauge at the front drivers side of the trailer reaches 2000psi. Hold valve at this position for 5 seconds then reopen
- 4.) Repeat step 3.) three times.
- 5.) Pressure in the tensioning guage should read 1300psi +/-25psi.
- 6.) If presuure is not in this window. Depressurize the sytem and and repeat steps above only tuning the ajustment scew in small increments. Rugulator will adjust 160psi per ½ tun. Clock wise to inclease pressure counter clock wise to decrease pressure.

Pump Performance Recommendations:

- 1) PTO: Power Take Off 100%
- 2) Hydraulic Pump Maximum: 60 GPM for dual drive with relief at 3000 psi (do not exceed).
- 3) Tank Filter: 10 Micron (return tank from trailer).
- 4) Reservoir: 50 gallons (minimum).
- 5) Trailer Hoses: Trailer has (2) 12' hoses with wing couplers (female).
 - a) Pressure line is a 1" female wing coupler.
 - b) Return line is a 1.5" female wing coupler.
- 6) Fluid: 10W hydraulic fluid.