

Material Standards & Specifications

Specialty Products Company



MSS	4.008	Nitrogen charging of Compact JounceShocks
Approved by:	CCH	
Revision:	A	
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Scope:

This procedure covers the operating instructions for the pressurizing the Compact JounceShocks for customer sales. This specification replaces IP-290.

OPERATING INSTRUCTIONS NITROGEN CHARGING OF JOUNCESHOCKS

WARNING:

The contents of the nitrogen bottle are under very high pressure so these instructions as well as other safety procedures must be followed carefully!

PPE Requirements:

- Safety glasses must be worn at all times when working with the nitrogen charging system.
- Ear protection must be worn when purging the tank valve (Step 3).

Procedure:

1. The nitrogen bottle must be secured by its safety chain at all times. The pressure regulator must be removed and the safety cap installed on the bottle any time the bottle is moved. **Warning: This bottle is very heavy and must be handled carefully! Seek assistance to lift it and do not allow it to fall over!**
2. Remove the bottle safety cap.
3. Check the bottle threaded outlet for obstructions or other debris. The valve may be cracked opened for a very brief moment to clear dust, etc. **Warning: Use extreme care during this maneuver! Wear safety glasses and ear protection !**
4. Install the regulator assembly onto the bottle and tighten the nut. **Warning: Do not over-tighten the regulator nut. This can damage the regulator nut and/or the bottle valve!**
5. Check to make certain the hose, fittings, and fill valve assembly are properly assembled and the fittings are tight. The hose and charging valve assembly are joined to the regulator assembly by a quick disconnect.
6. Make certain that the regulator handle has been backed off so the line is not over pressurized.
7. Slowly open the nitrogen bottle valve at least one turn. The small high pressure gauge will read the bottle pressure. **If there are any leaks immediately turn off the valve and contact your supervisor!**
8. Determine the proper charging pressure for this JounceShock lot of parts. If there is no pressure given to you shut off the tank valve and contact your supervisor.
9. Slowly turn the regulator handle clockwise until the desired pressure is showing on the large precision low pressure gauge. (The small low pressure gauge is less accurate but should read about the same pressure.) **If the low pressure gauges differ by more that 50[PSI] or the pressure does not come up to the specified pressure shut off the tank valve and contact your supervisor! Do not force this handle or you may damage the regulator!**

10. Open the black-handled valve slightly and close to bleed the pressure down momentarily and check to see that the pressure gauge still reads the desired pressure setting. If not, adjust the regulator handle accordingly.
11. **Warning: Do not exceed 600 [PSI] on the regulator! Pressures in excess of 600 [PSI] may cause the charge fitting hose to rupture!**
12. **Any time you leave the charging station the tank valve must be turned off.**
13. Charging instructions:
 - a. Turn the "T" handle valve counterclockwise until it stops. **Do not force this valve handle!**
 - b. Remove the yellow cap from the JounceShock fill valve or charging fitting.
 - c. Carefully screw the JounceShock fill valve onto the charging fitting (These are very fine right hand threads). **Do not cross thread the parts! Do not over-tighten!** A simple "snug" tightening is sufficient.
 - d. Open the valve with the black handle. It only moves ¼ turn. (When the handle is in line with the hose it is "ON".)
 - e. Slowly turn the "T" valve handle clockwise until you can hear the nitrogen filling the shock. This opens the valve core in the charging fitting on the JounceShock. **Warning: If the JounceShock is collapsed it will pop to its full length when pressurized!**
 - f. Let the shock fill for approximately 5 seconds and then turn the "T" handle counter clockwise to close the valve core in the JounceShock.
 - g. Turn the black handled valve "OFF". **Do not disconnect the JounceShock until this valve is shut off!**
 - h. Remove the Jounce shock from the charging fitting and set the hose aside. Be careful when removing the charge fitting so as to not unthread the JounceShock fill valve from the JounceShock. **Make sure you are wearing safety glasses during this step!**
 - i. Remove the Jounce shock from the charging fitting, listen for valve core leaks and set the hose aside. If the valve core leaks, set the shock aside for core replacement. If the JounceShock leaks from another point it will have to be set aside for return to Hilltop for rework.
 - j. Install the yellow valve cap onto the fill valve and torque to specification.
 - k. When completing a lot or leaving for the day shut off the tank valve and back off the regulator handle.
 - l. Always store the charging hose assembly after usage.

Valve Core Replacement:

1. Make certain that there is no pressure in the JounceShock. If necessary, **carefully** bleed off pressure. There may be a little oil spray, so cover the valve area with a rag or paper cloth when bleeding off pressure and hold the shock so that the valve is at the top to minimize oil loss.
2. Use a valve core removal tool to replace the defective core.
3. Dispose of the defective core.
4. Return the JounceShock to the nitrogen charging station.