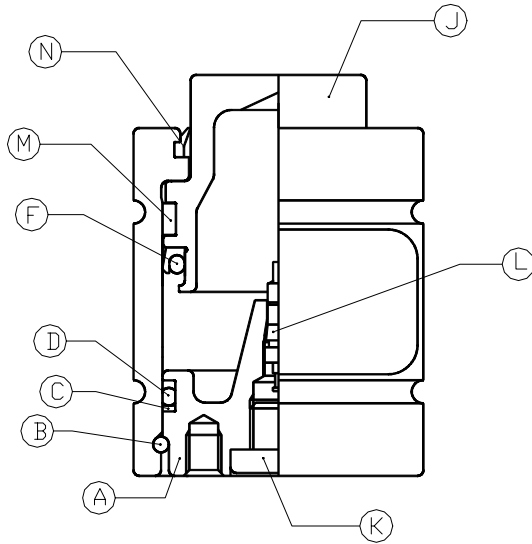


T2SC Series Service Instructions

2nd Generation Tanker® 2 SC Gas Springs Only



(A) Bottom	(H) Guide ring
(B) Lock ring	(J) Piston rod
(C) Support ring	(K) Cover screw
(D) O-ring	(L) Valve
(E) Guide ring	(M) Guide ring
(F) Piston seal	(N) Scraper
(G) Support ring	

Note: This seal kit contains components for 2nd generation T2SC springs only. Contact Hyson Products Customer Service to purchase components for servicing 1st generation springs. (The 1st generation springs have a shiny silver color cylinder tube and an unplated piston rod. The 2nd generation models have a dull gray cylinder body and a black or brown piston rod.)

Servicing Tools

Tool kit part number T2SCTK is required.

Note: Always use protective jaws when clamping the spring in a vise.



WARNING: Failure to exhaust all gas pressure prior to disassembly could result in serious injury.

Disassembly

1. Clamp the spring in a vise with the piston rod (J) facing downwards. Clamp the cylinder tube at the piston rod end, where the wall thickness is the greatest. Unscrew the cover screw (K). If there is no gas remaining in the spring, the bottom (A) may move. If so, gently clamp the spring at the lower end to remove the screw.
2. If there is still gas in the spring, release it by screwing the threaded end of the valve tool into the port until the valve opens.



WARNING: The valve (L) must not be unscrewed until the rod can be pushed down by hand or tapped down with a rubber mallet to ensure all gas is released.

Once the gas is released, use the opposite end of the valve tool to unscrew the valve. Pull the valve from the port with the valve pliers.

3. Using a socket and rubber mallet, drive the bottom (A) into the cylinder tube until the lock ring (B) is exposed. Remove the lock ring using the lock ring tool (the tool with the concave tip). Bend the lock ring upwards and inwards.
4. Pull out the bottom (A) from the cylinder tube using the appropriate T-handle. Pour the remaining oil from the cylinder.
5. Clamp the spring in the vise with the piston rod facing upwards. Using a mallet and socket, knock the piston rod (J) out through the bottom of the tube.
6. Remove the piston seal (F) and guide ring (M) from the piston rod (J). Remove the scraper (N) from the cylinder tube.
7. Remove the o-ring (D) and support ring (C) from the bottom (A).

T2SC Series Service Instructions

Inspection

- Wash the cylinder, piston rod (J), and bottom (A).
- Inspect the piston rod (J) and inside diameter of the cylinder tube to ensure there are no defects. There should be no scratches on the inside-sealing surface of the tube, the piston rod where the seals are to be mounted, or the lock ring grooves. If scratches exist, replace the parts.
- Discard all used parts that will be replaced in the seal kit. Save only the piston rod (J), bottom (A), lock ring (B), and cylinder tube.

Assembly

- Unpack the repair kit.

Spring Model	Seal Kit Part No.
T2SC-1000	T2SCSK-1000
T2SC-1800	T2SCSK-1800
T2SC-4700	T2SCSK-4700
T2SC-7500	T2SCSK-7500
T2SC-11800	T2SCSK-11800
T2SC-18300	T2SCSK-18300

- Press the scraper (N) into the groove located on the top of the cylinder tube.
- Insert the guide ring (M) and piston seal (F) onto the piston rod (J). Push the o-ring into the piston seal lip. The o-ring on the piston seal should be facing the bottom of the piston rod.
- Mount the support ring (C) & o-ring (D) on the bottom (A).
- Clamp the cylinder tube with the lock ring groove facing upward in the vise. Oil the seals on the piston rod and the upper part of the tube including the lock ring groove. Insert the piston rod (J) into the tube and tap it down using a socket and mallet until the rod is fully extended from the tube.

- Fill the spring with the appropriate oil volume.

Spring Model	Oil Volume
T2SC-1000	2 ml
T2SC-1800	4 ml
T2SC-4700	6 ml
T2SC-7500	10 ml
T2SC-11800	20 ml
T2SC-18300	30 ml

- Oil the o-ring (D). With the tapped holes facing the outside, use a mallet and socket to tap the bottom (A) into the cylinder until the lock ring groove is visible.
- Fit the lock ring (B) into the lock ring groove by pushing one end of the ring into the groove and knocking the other end with a mallet until it snaps into place. You can hear a clicking sound when the ring snaps into place.
- Pull out the bottom (A) with the appropriate T-handle until it is flush with the cylinder tube.



WARNING: If the bottom (A) and the tube are not flush, the spring is not correctly assembled! Do not attempt to fill with gas until the bottom and cylinder are flush! Do not proceed; call Hyson Products at 1-800-876-4976 for technical support.

- Thread the valve (L) into the fill port. Finger strength is enough to tighten the valve; over-tightening can damage the valve.
- Charge the spring with the desired amount of pressure. The maximum charging pressure is 150 bar (2175 psi).
- Screw the cover screw (K) into the fill port and tighten with 133-159 in*lbs (15-18 Nm) of torque. **Note:** The cover screw has a sealing function and must be tightly fastened.

Hyson™ Products
Associated Spring

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