

Townsend Industries, Altoona, Iowa 50009 ♦ Phone 1-800-247-2262 or 1-515-967-4261 ♦ FAX 1-515-967-7519

AB Dick S1 Cylinder Removal and Installation

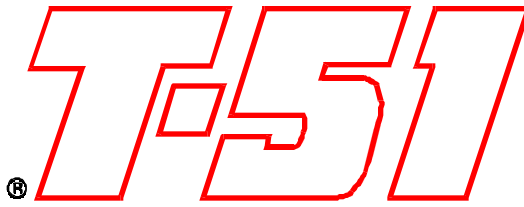
Removal

1. Swing the S1 away from parent press
2. Remove 2 of the screws (1) on the operator side main shaft bushing (2) and the 3 screws (3) from the non-operator side main shaft bushing (4). Loosen the remaining screw (5) on the operator side main shaft bushing (2).
3. Remove the screw and washer (6) from the vertical micro control block (7).
4. Remove the screw and stop washer (8) from the operator end of the main shaft. Remove the helix guide pin (9) from the helix sleeve (10).
5. Using the micro-horizontal driver (11), move the cylinder fully away until the operator side main shaft bushing (2) is free from the horizontal micro gear assembly (12).
6. Remove the remaining screw (5) from the operator side bushing (2). Remove both the operator side (2) and non-operator side (4) main shaft bushings. Use the screw (8) in the threaded holes in the bushings if necessary to push the bushings away from the side frame.
7. Hold the cylinder and slide it towards the non-operator side. The cylinder can now be removed by sliding the cylinder assembly through the clearance notch in the operator side frame.

Installation

1. Insert the non-operator end of the main shaft into the side frame hole and slip the operator end through the clearance slot.
2. Place the operator side and non-operator side main shaft bushings (2,4) in the side frame. Replace but do not tighten the six screws (1,3,5). The non-operator side bushing (4) must be positioned so that the helix pin access hole is at the bottom of the side frame.
3. With the micro horizontal tool (11), thread the micro horizontal gear assembly (12) onto the operator side main shaft bushing approximately half way. Evenly tighten the three screws (3) by alternating between screws until all the screws are tight. Evenly tighten the three screws (1,5) by alternating between screws until all the screws are tight.
4. Begin threading the screw and stop washer (8) into the operator end of the main shaft just a few turns.
4. Move the plate (14) up or down until the hole in the helix sleeve can be accessed through the hole in the non-operator side bushing (4). Replace the helix pin (9) using a serviceable thread locking compound.
5. Adjust the micro-vertical assembly (7) so that the screw and washer (6) can be replaced. Using the micro-vertical tool, adjust the assembly (7) so that there is approximately 1" (25.4mm) of thread visible. This allows for enough travel in the assembly in both directions.

Refer to the Cylinder Limit Setting instructions to complete installation.



Townsend Industries, Altoona, Iowa 50009 ♦ Phone 1-800-247-2262 or 1-515-967-4261 ♦ FAX 1-515-967-7519

AB Dick S1 Main Shaft Removal and Installation

Removal

The cylinder must first be removed from the S1.

1. Using the plate (14), turn the shaft (16) so that the screw (17) can be removed through the ring gear end access hole in the cylinder. CAUTION: Damage to (17) threads may result if pressure is not released on (17) by rotating and holding the ring gear or by removing the ring gear.
2. Using the plate (14), locate the screws on the main shaft bearings (18) through the access holes in the cylinder and loosen them 1/4 turn. Loosening them more could allow the lock ring to fall into the center of the cylinder.
3. Loosen the screw (13) just enough to clear the flat or slot on the shaft and remove the horizontal micro gear assembly (12).
4. The main shaft and assemblies (16) can now be removed from the cylinder.

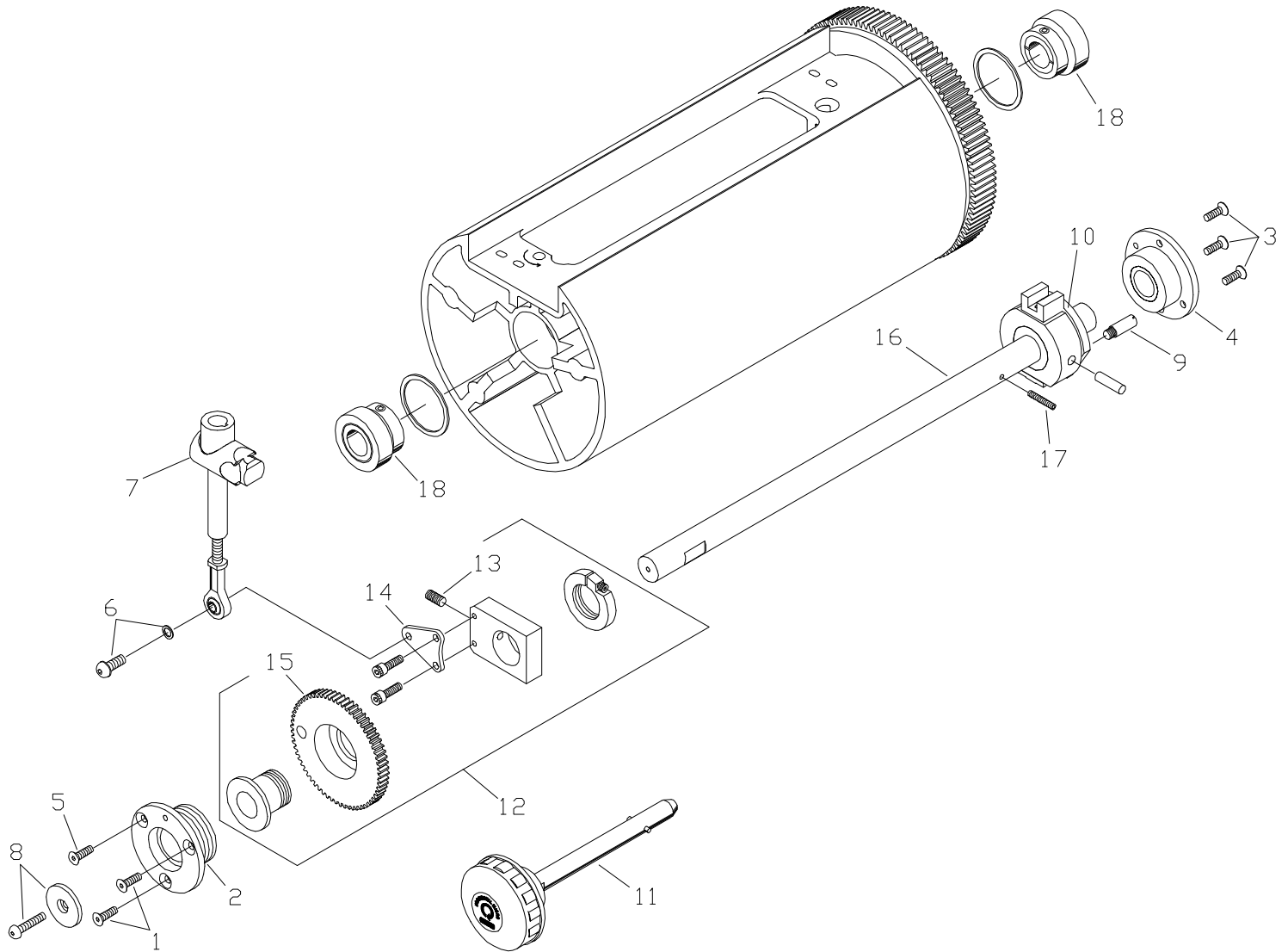
Installation

1. Insert the main shaft and assemblies (16) into the cylinder.
2. While pushing on the shaft, replace the screw (17) through the access hole on the ring gear side of the cylinder. The screw can only be threaded from one side of the shaft. Tighten the screws in the non-operator side and operator side bearing (18).
4. Replace the micro horizontal assembly (12) so that the screw (13) aligns with the slot or flat on the operator side of the shaft (16). Do not completely tighten the screw (13) until the cylinder is installed in the press.

Install the cylinder in the press and refer to the Cylinder Limiting Setting instructions to complete the installation.

AB Dick S1 Cylinder Limit Setting

1. With the cylinder installed in the press, use the horizontal micro tool (11) to bring the cylinder towards the operator side until the horizontal micro gear (15) is against the side plate.
2. Loosen screw (13) and slide the cylinder until the outside edge of the ring gear is 5/16" from the inside of the non-operator side frame. Tighten the screw (13) very tightly. This adjustment sets the limit for moving the cylinder towards the operator.
3. Using the micro horizontal tool, move the cylinder away until the outside edge of the ring gear is 5/32" from the inside of the non-operator side frame. Thread the screw (8) into the main shaft until the washer just bottoms out. Do not tighten further. This procedure sets the limit for moving the cylinder away from the operator.
4. Swing the S1 into position and double check the limits. When the cylinder is fully away, the S1 plate cylinder surface should have approximately 1/16" clearance from the blanket ring gear. When the cylinder is fully towards the operator side, the S1 ring gear should have 1/32" - 1/16" clearance on all four form rollers. Make any adjustments necessary to get proper clearances.



A. B. Dick Plate Cylinder Removal