

SVS Type 1 (2, 3, and 4 Groove Sheaves)

Installation & Maintenance Manual

P-5073-TBW
Form 935A





WARNING: Cancer - www.P65Warnings.ca.gov

INSTALLATION AND OPERATION INSTRUCTIONS

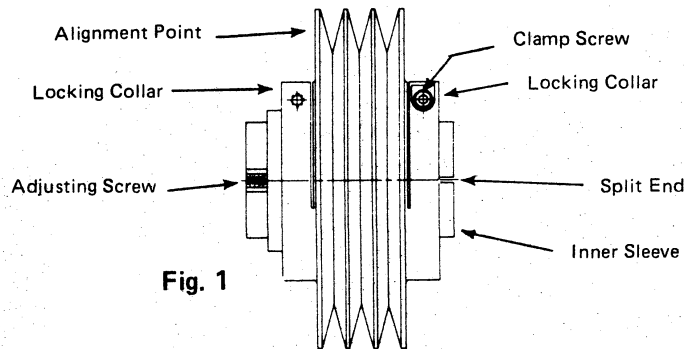


Fig. 1

1. Remove SVS sheave from carton and inspect for any broken parts. If broken, a claim should be filed with the freight company.
2. Secure companion sheave to the driven shaft, following the instructions furnished with the Sure-Grip bushing.
3. **Loosen both** locking collar clamp screws. Adjust the SVS to the same face width as the companion sheave by turning the adjusting screw on the outboard side clockwise to close or counter-clockwise to open. The outboard side is the end opposite the split in the inner sleeve. **Warning: Do not attempt to adjust the flanges past the ends of the inner sleeve.**
4. Inspect motor shaft & key for any nicks or burrs and remove if present. Slide the SVS onto the motor shaft. The split end of the inner sleeve should be toward the motor.
5. Align the SVS with the companion sheave by using a straightedge or a piece of string. Place the straightedge against the machined outside surfaces of the outside flanges of both sheaves. The straightedge should touch all four surfaces as shown in Fig. 2.

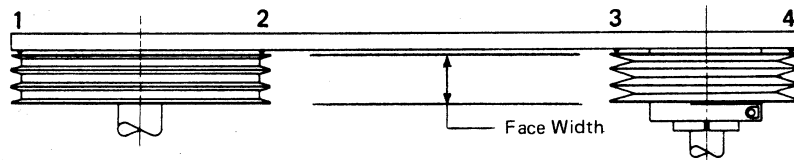


Fig. 2

6. Adjust the SVS to the required pitch diameter. Either count the number of turns of the adjusting screw or measure the change in the face width of the sheave in accordance with Table 1. In adjusting the sheave, **do not** attempt to adjust the flanges past the ends of the inner sleeve, since forcing them past the stop provided by the label could seriously damage the sheave. **Final adjustment should always be made by turning the adjusting screw clockwise or closing the flanges.** This will assure equal flange spacing.

Table 1

| SVS Sheave | Turns of Adj. Screw Min. to Max. P.D. | One Turn Changes P.D. Approx. | 1/8" change in Face Width Changes P.D. (Approx.) | | |
|------------|--|----------------------------------|--|-------|-------|
| | | | 2 gr. | 3 gr. | 4 gr. |
| B | 10 | .14 | .20 | .16 | .12 |
| C | 14 | .16 | .24 | .16 | .12 |

7. Tighten **both** locking collars to the **required** torque listed in Table 2 but **do not exceed** these values. This locks all components tightly together to prevent fretting and wear on adjustable parts. The inboard collar also clamps the sheave to the motor shaft. **Warning: Do not squeeze flanges while tightening locking collars.** This could cause excessive runout.

Table 2

| Sheave | Wrench Torque Ft.-Lbs. |
|--------|------------------------|
| B | 15 |
| C | 30 |

8. Install the belts without forcing or prying them, then apply proper belt tension to the drive.
9. Install OSHA approved belt guard.

REPAIR INSTRUCTIONS

DISASSEMBLY

1. Matchmark all flanges and the sleeve to ensure proper alignment of parts and aid in reassembly.
2. Loosen, but **do not** remove socket head clamp screws from the outboard and inboard flanges. See Figure 1.
3. Turn the adjusting screw to open the sheave to the minimum pitch diameter position. **Warning:** Do not try to adjust the flanges past the ends of the inner sleeve.
4. Using a long punch, drive out the roll pins which hold the fixed flange to the central sleeve. See Fig. 3.
5. Slide the fixed flange toward the inboard (bore) end of the sheave to expose the positioning key which retains the adjusting screw. Remove the key by driving on the portion of the key under the screw with a small punch. See Fig. 4.
6. Turning the adjusting screw, move the flanges together until they touch. On the three and four-groove sheaves, remove the flathead screws which fasten the rectangular nuts to the outer flanges. See Fig. 6.
7. Using a press or a soft hammer, remove the inner sleeve from the flanges.
8. Push both ends of the adjusting screw toward the center of the flanges to remove. **Do not** change the positions of the nuts on the screw. See Fig. 5. Remove the plastic shims from the inside faces of rectangular nuts & save for reassembly.

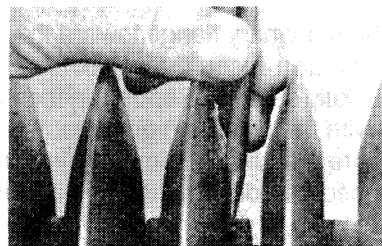


Fig. 3

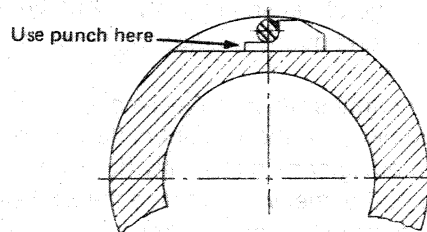


Fig. 4

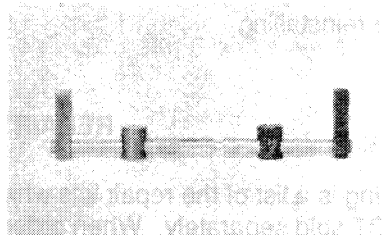


Fig. 5

INSPECTION

1. Clean the sleeve and the bores of the flanges. If there is any fretting corrosion on the O.D. of the sleeve, clean with fine emery. If the parts are badly corroded or worn from having been run with loose locking screws, the sheave should be replaced.
2. Check the belt faces of the flanges for wear. Normally, this should be slight and even. If the wear is heavier on one side than on the other, the drive has been misaligned. Carefully check alignment when reinstalling the drive. If the flanges are badly worn, replace the sheave.

REASSEMBLY

1. Stack the flanges together in the correct order and properly aligned.
2. Position the new barrel and rectangular nuts (if required) on the new adjusting screw to match as closely as possible those on the old assembly.
3. Insert the assembly into the flanges, making sure that the flanges are stacked tightly together. **Note:** Some trial and error fitting may be necessary. If difficult to fit, remove one nut and restart it one-half turn from its original position.
4. Lubricate the sleeve OD and the flange assembly ID with light oil or a moly-type lubricant to ease assembly.
5. Slide the sleeve into the flange assembly. Make sure that the ends of the adjusting screw are flush with the ends of the sleeve.
6. Install plastic shims which were on inside face of rectangular nuts & tighten flathead screws which affix them to the outer flanges, if they are used. See Figure 6.
7. Open the flanges by turning the adjusting screw until the outer flanges are flush with the ends of the sleeve.



Fig. 6

8. Slide the stationary flange toward the inboard (bore) end and insert the positioning key, ensuring that it is fully seated. Reposition the stationary flange with the aid of a groove gauge, as in Fig. 7. Make sure that the roll pin holes in flange & sleeve are aligned, but **do not** insert pins. See Fig. 3.
9. Close the flanges gradually by turning the adjusting screw, while checking the flange spacing with the groove gauge at several points around the O.D. of the flanges and over the adjusting screw.
10. Open the flanges while rechecking the spacing. Insert the pins into the stationary flange and sleeve, making certain that they do not extend into the bore of the sheave. Replace the socket head clamp screws in to outer flanges.
11. Recheck flange adjustment and groove spacing before reinstalling.

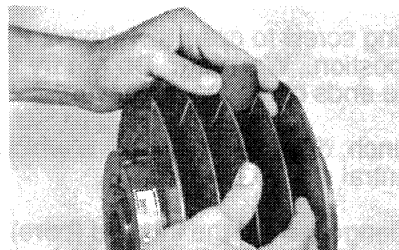


Fig. 7

Repair Kits For SVS Type I Sheaves

The following is a list of the repair kits which are furnished by TB Wood's Incorporated. Parts contained in these kits are not sold separately. When ordering a kit, specify the complete part number as shown below.

| SVS Sheave | Kit Product Number |
|-------------------|---------------------------|
| 2B grooves | SVSB2AK |
| 3B grooves | SVSB3AK |
| 4B grooves | SVSB4AK |
| 2C grooves | SVSC2AK |
| 3C grooves | SVSC3AK |
| 4C grooves | SVSC4AK |

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Couplings*

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For Application Support

1-888-829-6637 (Press #7)

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Customer Service

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775-857-1800

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The Brands of Altra Motion

Couplings

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Svendborg Brakes
www.svendborg-brakes.com

Wichita Clutch
www.wichitaclutch.com

Gearing & Specialty Components

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Boston Gear
www.bostongear.com

Delevan
www.delevan.com

Delroyd Worm Gear
www.delroyd.com

Nuttall Gear
www.nuttallgear.com

Engine Braking Systems

Jacobs Vehicle Systems
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Precision Motors & Automation

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Portescap
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