

# **RBS (FIXED LUG) SECONDARY CLEANER** [INSTALLATION INSTRUCTIONS]

THE TOOLS & RESOURCES REQUIRED ARE:

- 1. TAPE MEASURE
- 2. SQUARE
- 3. CUTTING TORCH
- 4. LEVEL

- 5. ADJUSTABLE WRENCH
- 6. WELDING EQUIPMENT
- 7. CHALK
- 8. 4 MOUNTING BOLTS

#### SHUT DOWN AND LOCKOUT CONVEYOR BEFORE PERFORMING ANY MAINTENANCE



#### STEP 1

Measure the spindles and conveyor structure where the cleaner will be installed and fabricate mounting brackets as needed (supplied by installer) to allow the spindles to be mounted on both sides of chute. Spindles can be inverted if needed (Figure 1) Measure the lugs and cleaner assembly and prepare cutouts (approximately  $5 \frac{1}{2}$ " x 8 1/2") on both sides of chute (Fig 2). When locating the bracket and cut out location ensure the final location of the blade tips will be a minimum of 4" after the bet leaves the pulley. When installing the brackets, they must be parallel to the conveyor belt line (Fig 3).

#### STEP 2

Attach (bolt) a spindle to the prepared bracket (supplied by installer – if required) on one side of the conveyor (Fig 1)

#### **STEP 3**

Using three jam nuts, attach one of the lugs to the spindle previously mounted to the conveyor. Two of the jam nuts should be at the bottom side of the lug.

# STEP 4

Attach the second fixed lug to the loose spindle with additional three jam nuts to make a second assembly. Then, slide the second assembly onto the end of the shaft. Insert the Shaft into the Fixed Lug/Spindle assembly previously bolted to the conveyor structure and lift the Scraper Unit (which now includes the second fixed lug/Spindle assembly) and bolt the loose spindle to the conveyor structure with two bolts (not included). **Note: Once this instruction is completed the Shaft, with Blades/Torsion holders will be in a hanging position.** 

# STEP 5

Rotate the Shaft so that the blades/holders are in a vertical position. Note: the tips of the blades will just below the belt surface minimum of 4" from the pulley.

Adjust the Shaft so that is centered to the belt width. Set the Shaft parallel to the belt line. Check that the Fixed lug/ Shaft is horizontal on the spindles. Now lightly tighten the set bolts in each of the lugs, but only sufficiently to ensure that the Shaft does not rotate/tip over. **Note: do not over tighten the set bolts at this stage as the final setting of the Shaft does not tip over.** (Fig 4)



# STEP 6

Raise the Shaft until the blades lightly touch the belt. Ensure the blades are minimum 4" beyond the point where the belt leaves the pulley. If they are not at least a minimum of 4", you will need to relocate your mounting brackets and start over.

Note: Adjusting the top and bottom nuts on the spindle, allows the Shaft to be moved vertically up or down.

#### STEP 7

To establish that the Shaft is parallel with the belt line, use an Engineers Square to check that the 3/8"x1 1/4" flat on top of the Carrier Shaft is parallel with the belt. If not, loosen the set bolts in each of the lugs to enable the shaft to rotate. After establishing that the Shaft is parallel with the belt line, ensure that the set bolts in each of the fixed lugs are firmly tight.

# **RECOMMENDED BLADE POSITION**

#### CHECKLIST

- 1. Spindles are installed at  $90^{\circ}$  to the belt surface.
- 2. The Scraper Unit is parallel to the belt.
- 3. Inclined The recommended blade position is 4" minimum from the nip point (tangential point) where the belt leaves the head pulley, in the cases where snub pulleys are installed.

Vertical - The recommended blade position is 4" minimum from the vertical centerline of the head drum. (See Fig 5)

4. On Installations where there is no snub pulley, the first return roller should be installed approximately 40" from the center of the head pulley. This will ensure that the belt is sufficiently supported and flat. The belt needs to be flat as possible to ensure good blade contact and cleaning efficiency. (See Fig 5)



### START-UP OF THE BELT

- 1. Unlock the conveyor.
- 2. Perform a test run with material on the belt.
  - A. Check the belt tracking.
  - B. Ensure this is no excessive vibration at the cleaner (chattering, ect).
- 3. Check blade setting as described below.

# Note: If cleaning efficiency is not being achieved adjust spindle nuts to raise the shaft assembly until correct cleaning efficiency is achieved.



# **BLADE SETTING**

In order to ensure that the Arch RBS Metal-Bladed Segmented Secondary Scraper operates correctly, it is essential that all blades are inclined in the direction of the belt traveling using the belt scraper principle like a "paint scraper". (Fig 5)

If there are any questions or comments, please contact Arch at 1.800.553.4567.

# THANK YOU FOR USING ARCH PRODUCTS!