Instruction and training manual

# DOUCET MACHINERIES INC.

An ISO-9001 certified manufacturer of high-quality machinery for the woodworking industry.

# BT-20XX Changing direction

### INSTRUCTION AND TRAINING MANUAL

Revised on November 10<sup>th</sup>, 2005

# **BT** modification

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### Introduction

Doucet Machineries Inc. is an ISO-9001 certified manufacturer of high-quality machinery for the woodworking industry.

Our mission is to furnish quality products and services that will answer all our customer's expectations while respecting a working environment that is motivating for each and everyone.

Your equipment was designed and constructed by a team of specialists and will help you produce top quality products for many years to come.

#### **ABOUT THIS MANUAL**

This manual is included with your equipment in order to help you with set-up, operation and troubleshooting. It also includes detailed instructions on how to order spare parts for your equipment.

The information provided in this manual was accurate at the time of printing. Your equipment may differ slightly due to improvements or other modifications we may have applied. Some custom features may have required slight modifications as well. If your equipment incorporates custom features, we ask you to refer to the client design and specifications section inserted as an addendum for more information.

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# Chapter

1

# **Precautions and Specifications**

#### PRECAUTIONS.

#### Installation:

Avoid placing this machine in an area of:

- -High humidity.
- -High temperature.



### **WARNING!**

To avoid injury and physical damage disconnect the power from the machine and associated units before undertaking any repairs.

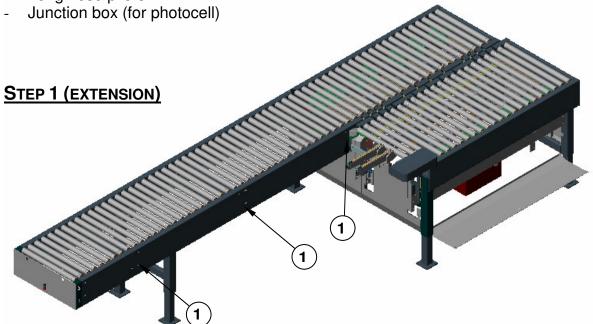
Handle with care. Any violent shocks could alter adjustments or cause damage to the machine.

Always wear safety glasses.

# **Modification steps**

#### **WHAT YOU WILL NEED**

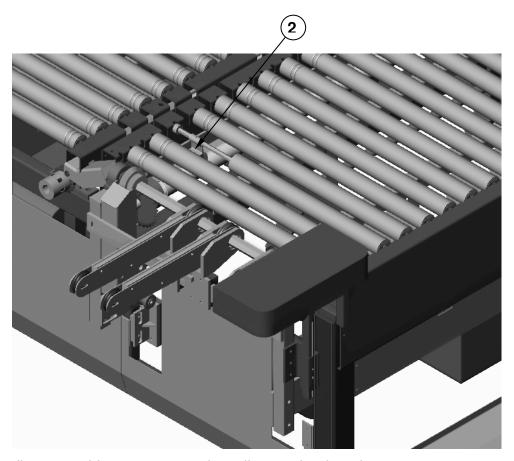
- Ratchet with 7/16, 1/2 and 9/16 Socket
- Wrench of 1/2 and 9/16
- Hexagonal key of 1/8, 1/4" and 3/16"
- Phillips and flat screw driver
- Long nose pliers



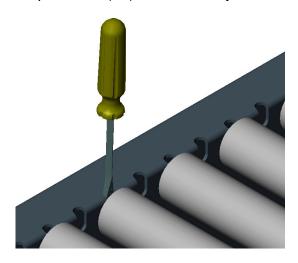
### (For each step, leave the screws in a bag near the pieces that you have removed)

- 1- Unplug machine
- **2-** Remove the return extensions (#1).

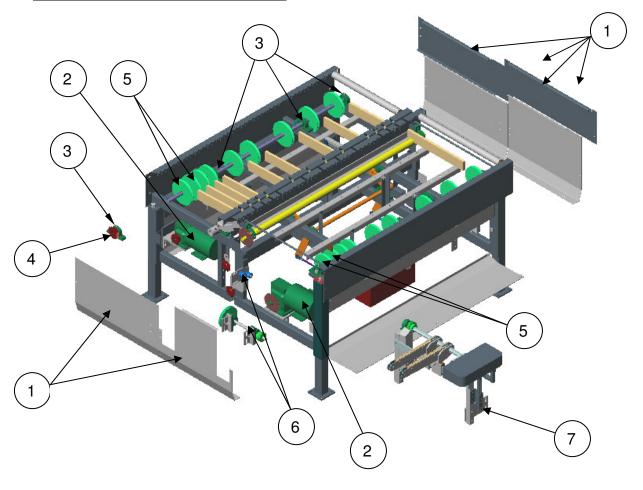
### **STEP 2 (REMOVE ROLLERS)**



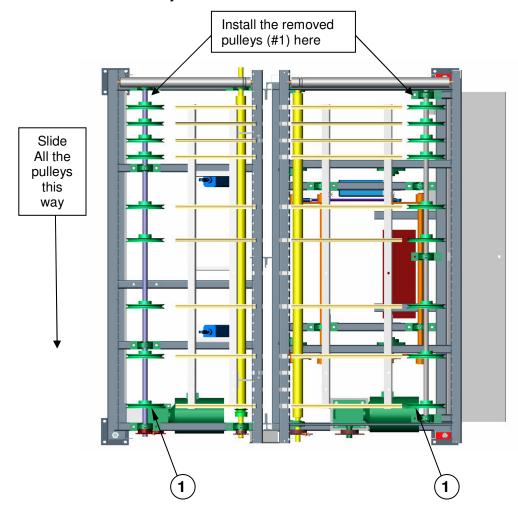
- 1- Use a flat screwdriver to remove the rollers on basic unit.
- 2- Leave the photocell (#2) in the conveyor for the time being.



### **STEP 3 (PRINCIPAL TAKE DOWN)**



- 1- Remove all panels (#1) as shown on drawing.
- 2- Detach the two chains that are driven by the 2 motors (#2).
- **3-** Unscrew bolts on the basic unit pillow blocks (#3) on both sides. (leave the bolts in their holes)
- **4-** Remove the sprocket and the 2 pillow blocks (#4) on shaft.
- **5-** Find the joint on the red transfer belts and cut them near the attach. Remove 2 first pulleys on the return side and the 2 first on the receiving side of the conveyor (#5).
- 6- Unscrew bolt on the two brackets (#6).
- **7-** Unscrew 4 bolts on bracket (#7), to remove motorized arms.
- 8- Insert the removed pulleys on the right side of the shaft to have four belts on the entry side of the conveyor. Replace pulleys, planks and belts at their new position to have the right distance between them, look the next picture.
- 9- Replace bolts on pillow blocks and reinstall the sprocket (#4).

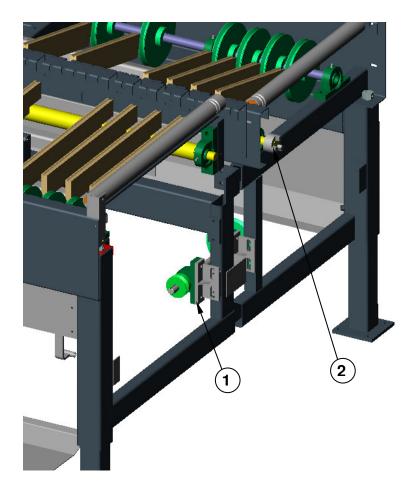


After those modifications your machine should look like that.

### **STEP 4 (ARM MOTORISATION)**

- 1- Unscrew bolt on the pillow block of motorised shaft to remove pulley and belt (#1).
- 2- Slide the shaft in the pillow block to permit you to install the pulley on the other side of the shaft. Do not forget to realign the sprocket on this shaft after the displacement.
- **3-** Install the pulley and the belt on the shaft on the other side as shown on picture.
- **4-** Reinstall pillow blocks and chains.

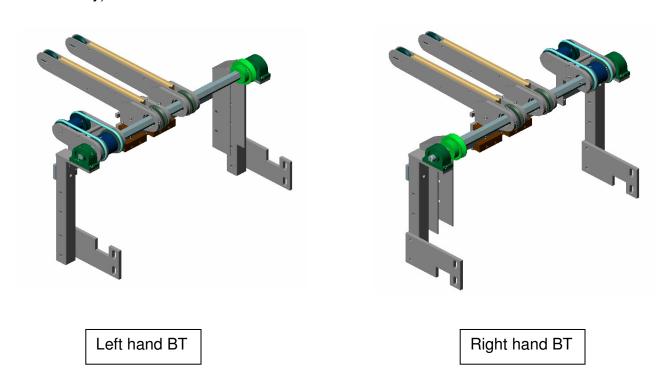
# STEP 5 (ARM PULLEYS)



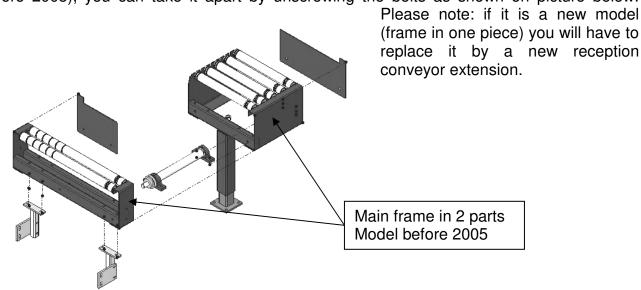
- 1- Reinstall the bracket (#1) the smallest pulley should be on the receiving side.
- 2- Install lovejoy coupling (#2) on the return shaft.

### STEP 6 (ARMS)

1- If your conveyor does not have a reception conveyor extension, take down your arm assembly and rebuilt (as shown on the double picture below) to have the right arm assembly for your conveyor. (do not forget to put the belt in the pulley). Go to step 7 (arm assembly)



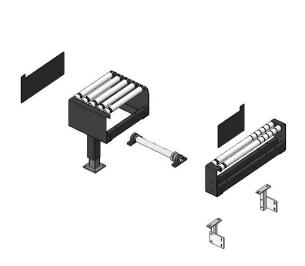
If your conveyor does have a reception conveyor extension that can be disassembled (model before 2005), you can take it apart by unscrewing the bolts as shown on picture below.



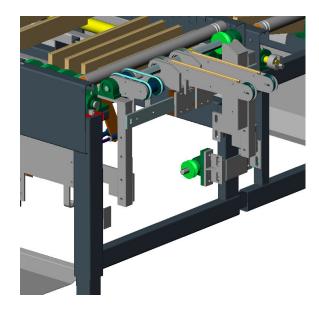
**DOUCET MACHINERIES INC.** 

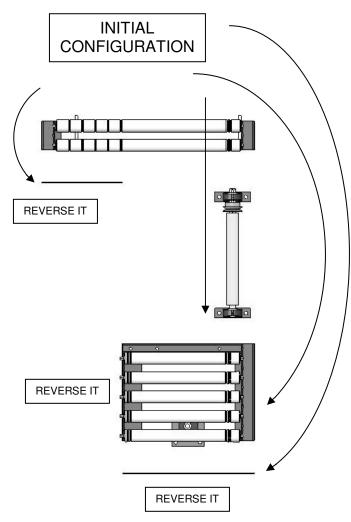
Then, reassemble the reception conveyor extension as shown here on the 2 pictures. You will have to remove the short rollers and reinstall them after completing the frame assembly.

Go to step 8 (Short roller and photocell)

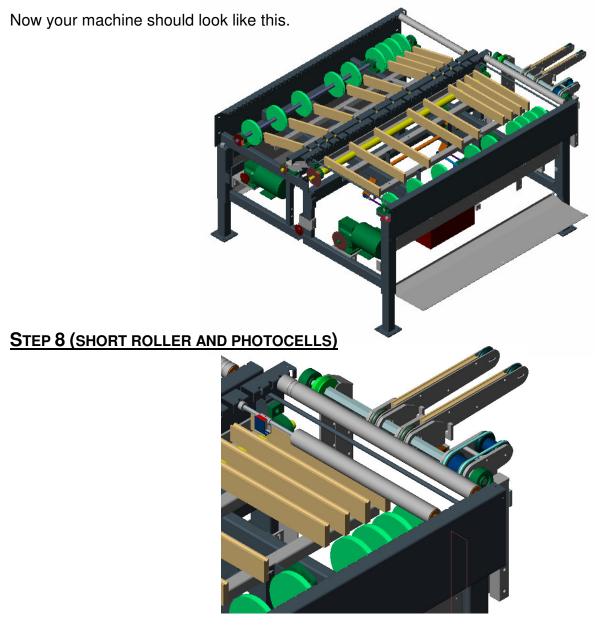


### STEP 7 (ARM ASSEMBLY)



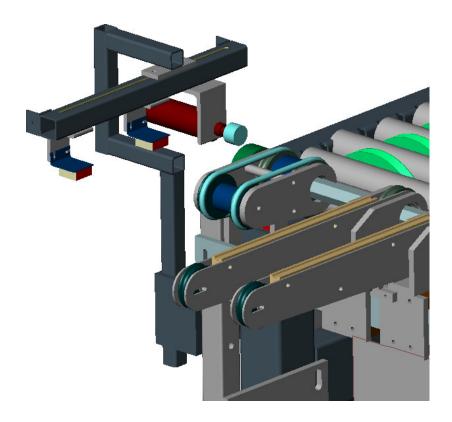


1- Reinstall the motorized arms on the right side of the conveyor. The receiving table must be in the upper position (you need air on the machine). The top of the belt should be at 1/8" over the roller of the conveyor when the receiving table is in the upper position.

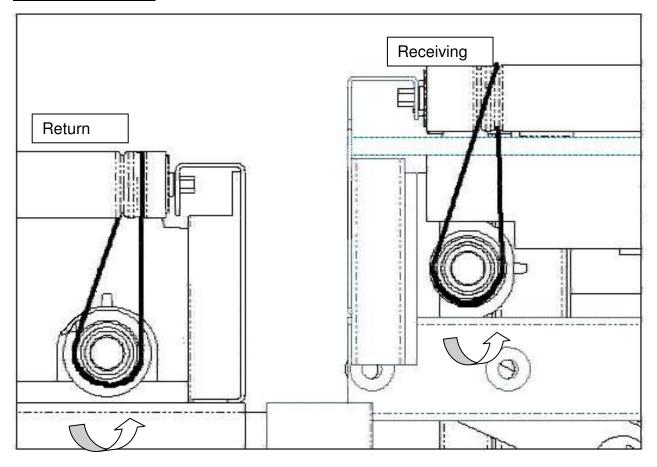


1- Install the short roller with the photocell, be sure to attach the cable on this side as it was on the other side. Maybe you will need to extend the photocell wires.

2- Now install the photocell support on the motorised arms, (see next picture), Take down the assembly and rebuild as shown on the next picture. You have to extend the wires for those photocells. Position the photocells right over the arm belts.



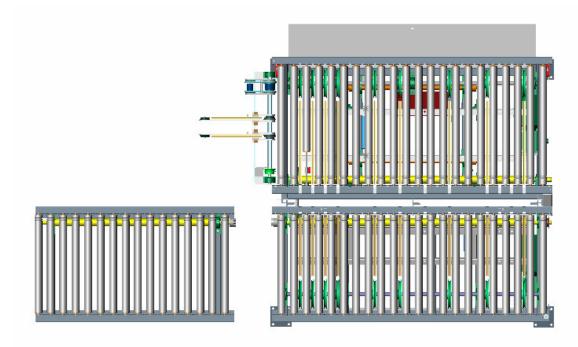
### STEP 9 (ROLLERS)



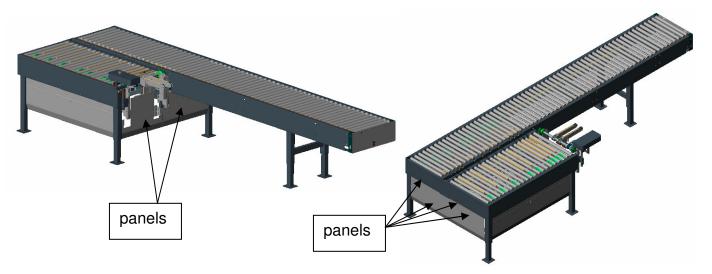
- 1- Install rollers. Make sure to twist the belt in the right direction. This twist will control the direction of the rollers. (The rotation of the shaft is always counter clockwise. Just modify the twist of the belt to change direction).
- 2- Do same twist on each return section, before install this section.

### **STEP 10 (RETURN SECTION)**

1- Fix the return section in the same holes on the other side of the conveyor.



After reinstalling all return sections you are ready to install the panels as shown on the next picture.



Now refer to chapter 2 in your instruction manual for the installation.