TSVLF Autoloader Disassembly Procedure/Check List

Serial No.: BA_____ Date: ___/___/_____ Checked by: _____

***THIS CHECKLIST SHOULD BE FORWARDED TO SHIPPING PREPARATION STAFF UPON COMPLETION OF DISASSEMBLY**

1. Autoloader Module Disassembly Preparation

- ❑ Fill out traveler with your work hour of test daily
- ❑ Contact people who are available to help you for disassembly and keep them informed of the schedule two days before disassembly
- ❑ Check if you have the right size table support crate on hand, order from Shipping department if you don't
- ❑ Check if all necessary subassembly configuration records on hand
- ❑ Fill out configuration record according to component list, subassembly configuration records and part no. of subassemblies
- ❑ Initialize NVS Stats by entering "nvs init stats" and then enter "list stats" to check if the necessary parameters are zeroed
- ❑ Confirm that all the parameters are set correctly and nvs saved by entering "nvs dump diff min" and check if all the parameters which should be saved are nvs saved already
- ❑ Put a floppy disk into A-drive of the workstation and use system integration script file version 12_7 to backup NVS parameters by selecting "Integration", "VLF Trendsetter", "VLF Trendsetter/VLFTSAL" and entering "BAXXX". Six subfiles/ BAXXX ver.txt 2KB/ BAXXX fwdir.txt 1KB/ BAXXX module.txt 1KB/ BAXXX dif.txt 27KB/ BAXXX dump.txt 68KB and BAXXX nvs.txt 79KB should be created. Open each file to check if the information is complete
- ❑ Create a file named by the serial no. of the Autoloader in the folder \\CSCFile1\CSCShared\Ctp_nvs\Vlftsal on network and copy all the backup NVS parameters from the disk in A-drive into that file
- ❑ Collect all the check lists and the backup data disk into corresponding file in the VLFTSAL cabinet located in Integration room
- ❑ Put TEC clamps on the drum
- ❑ Move carriage to position 45000 and coordinate with integrator to remove head
- ❑ Open pdoor and set table in idle status before you shut off computer
- ❑ Contact with Shipping department to let them know of disassembly schedule

2. SSR/Garage Deck

- ❑ Disconnect SSR power cord and air tubing from MCU or garege, put umbilical cable in shipping kit
- ❑ Empty slip sheets bin
- ❑ Dismount SSR or garage deck and clean up external side
- ❑ Check if the SSR positioning fastener is in position
- ❑ Dismount SSR ramp, put it in shipping kit
- ❑ Dismount SSR safety lead edge, put it in shipping kit
- ❑ Dismount SSR guide rail on base machine, put it in shipping kit

3. MCU

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- ❑ Remove all cassettes from MCU
- ❑ Check if all cassettes have been labeled with respective cassette numbers (front and sides)
- ❑ Use vacuum cleaner to clean top of cassettes
- ❑ Stack cassettes with four white foams among each other
- ❑ For airway shipping only: Put a thin layer of foam and two pieces of plywood inserts between each cassette and on the top of the top cassette in order to hold the arborite in place during shipping
- ❑ Put two cassette #labels on each cassette
- ❑ Disconnect power cord, air tube, coil them with tie wraps and put umbilical cable in shipping kit
- ❑ Clean the lead screw and apply grease on it evenly
- ❑ Fill the bearing block with grease
- ❑ Put casters back and make sure the screws are secured
- ❑ Organize all the cables inside power box, make sure that no cable is missing
- ❑ Print out serial no. label, put all necessary labels, including safety labels, on the machine
- ❑ Replace all panels
- ❑ Take ledge off, replace the fasteners and put the ledge in shipping kit
- ❑ Clean inside and outside of machine, do necessary touch up
- ❑ Inform Shipping department that machine is ready for shipping

4. Garage

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- ❑ Disconnect wiring, air tubing and coil them with tie wraps
- ❑ Adjust garage height back down to its lowest positon
- ❑ Adjust cassette cart casters back down to their lowest positions
- ❑ Untie clamp plates, support strut and move garage set, including base plate and docking station out of floor plate assembly
- ❑ Remove floor plate assembly from the bottom of base machine, disassemble them and put back beam and angle beam in track crate
- ❑ Organize all the cables inside power box, make sure that no cable is missing
- ❑ Replace all panels
- ❑ Print out serial no label, put all necessary labels, including safety labels, on the machine
- ❑ Clean the panels, do necessary touch up
- ❑ Place garage assembly on dollies
- ❑ Inform Shipping department that machine is ready for shipping
- ❑ Raise the tongues of all SCU cassette carts to the top position and fix it
- ❑ Lower the whole cassette cart of all cassette assemblies to the lowest position by turning counterclockwise the bolts on the top of the casters
- ❑ Check all the screws on the cart assemblies to make sure they are tighten

5. Picker/Track/Support Arm

- ❑ Order a track crate from Shipping department
- ❑ Clean top panels of conveyor and cover them with foam
- ❑ Take track skins and picker skin off and put them on the top of conveyor
- ❑ Mark locations of track on support arms, track support heads and track support sliding shoes with pen
- ❑ Unscrew shoulder bolts on the carriage, disconnect air tubing, wiring and take off the picker, replace the shoulder bolts
- ❑ Put skin back to picker, clean all track and picker skins, do necessary touch up
- ❑ Check model no. of track skin matches with customer order
- ❑ Slide carriage to motor side to align with the hole on top of track and put a 52-3207 M4*45 sock cap screw to hold the carriage in position
- ❑ Take off the stepper motor and put in shipping kit, replace the screws and tie motor side belt with tie wrap to avoid being caught by anything
- ❑ Put the track into crate, for garage only: make sure that floor plate beams have put inside the crate
- ❑ Disassemble support arm heads and put them in shipping kit, replace the screws and tighten them securely
- ❑ For field install only: take off cables 10-4379a, 10-4381a and 10-4390a from base machine and put them in shipping kit
- ❑ Coil all cables on the top of support arms, wrap them with foams for transportation protection

6. S-Conveyor

- ❑ Disconnect safety switch wiring and dismount conveyor connection plates from base machine, put them in shipping kit
- ❑ Organize all cables inside the leg pod, fix them with push mounts and tie wraps
- ❑ Replace all panels
- ❑ Check if the filler strip insert into the feeding side of the frame
- ❑ Check if the top panels are secured with 52-3218 M6x20 sock-cap full thread screws, two screws on each panel
- ❑ Clean all panels, do necessary touch up

7. L-Conveyor / RS-Conveyor

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The following procedure describes disassembly and packing of the L-Conveyor into a single shipping crate.

Proceed only when air to the Autoloader base machine has been shut off and bled. The electrical system of the base machine must also be off.

During disassembly, temporary labels will be added to selected parts for quick identification by installation crews who may not be familiar with names and orientation. The glue on these labels should be of the strength that will allow easy peeling during the assembly process.

Foam pads should be used to protect the arborite table tiles when personnel are required to climb onto the table or temporarily place items such as a panel on top.

- ❑ Detach 2 meter air line, electrical cable, cable tether and bracket that join conveyor to base machine. Seal items inside a bag labeled: “L-Conveyor”. Add bag to Autoloader main ship kit.

- ❑ Disconnect safety loop wires from both switches at the conveyor in-feed bracket.
- ❑ Remove conveyor bridge plate and add to Autoloader main ship kit.
- ❑ Roll conveyor to crating area. One 4'x8' sheet of blue foam should be set up on a part of the floor reserved for detached parts and bags of hardware related to the conveyor. The main crate should be in position with front and rear panels removed.
- ❑ Detach conveyor connection plate from base machine. Capture both sets of M6 screws, washers, nuts with connection plate. Add parts to ship kit.
- ❑ Remove four base panels and add to ship kit.
- ❑ Detach safety covers from the table trim pieces located at each end of the processor interface panel. The painted M4 fasteners for the safety covers should be snug-threaded back into trim pieces for safekeeping. Add both safety covers to ship kit.
- ❑ Remove, label and mark mounting location of painted table trim panels from all sides of the conveyor. Seal fasteners inside a bag labeled: "Table trim". Add parts and bag to ship kit.
- ❑ Detach and label processor interface bracket. The label should also identify which side is mounted closest to processor and which edge is "up". Seal fasteners in a bag labeled: "Processor bracket". Add bracket and bag to ship kit.
- ❑ Cut tie wraps attaching safety loop cable to in-feed ramp. Detach in-feed ramp. Add a label to the black base panel describing: "Autoloader side. In-feed bracket mounts here". Seal fasteners in a bag labeled "In-feed ramp". Add ramp and bag to ship kit.
- ❑ Detach and label mounting location all table trim mounting panels/channels. Matching labels need to appear on panels and on the table. Seal fasteners in a bag labeled: "Table trim mounting panel/channel".
- ❑ Pack foam around each cylinder so they can't move side-to-side during shipping. Tie wraps secure cylinders and foam to the base-frame.
- ❑ Prevent possible side-to-side sway of cable carrier track during shipping by using tie wraps and foam to attach to base-frame and forklift tubes.
- ❑ Wedge pieces of cardboard between black base-frame panels and outer perimeter of table to prevent any side-to-side shifting. This is protecting table guide pins and bearings.
- ❑ Shipping crew to use fork lift to place conveyor into main crate. Base secured on four sides by padded angle brackets.
- ❑ Tie wrap castors to support brackets to prevent turning and rattling during shipping.
- ❑ Bubble wrap remaining panels and brackets including fasteners. Secure all items inside main crate before installing sides and top of main crate.

8. Autoloader ready base machine

- ❑ Remove all panels
- ❑ Take off guard rail interface panel and put it in shipping kit
- ❑ Dismount guard rails and put them in shipping kit
- ❑ Put casters back and make sure the screws are secured
- ❑ Turn adjustable feet to top position, fix them with duct tape
- ❑ Vacuum and clean inside machine, be careful when you clean around the fly-off sensor and mirror area, make sure that the alignment is not changed
- ❑ Wrap flex track cables with antistatic bag and antistatic tape
- ❑ Attach wrist strap and cord on carriage with antistatic tape
- ❑ Lift hose tray up to higher position for forklift access and attach sign in center of hose tray
- ❑ Clean two spots of center panel with alcohol and apply foam strips
- ❑ Replace all front panels

- ❑ Replace two filters of front air intake panels.
- ❑ Put orange plug in air line fitting and chiller line fittings if equipped
- ❑ Lift hood
- ❑ Rotate the drum so magnets are facing you and push 3 foam blocks under drum, secure them with tape
- ❑ Put in 6 pieces of foam on shafts of backbone cylinders
- ❑ Put in 11 pieces of foam in backbone and secure them with 30 cable ties
- ❑ Attach label “Remove 11 …” in the center of backbone
- ❑ Raise the pdoor to open position and hold it by inserting two piecec of foams into the space of pdoor and hood on both ends
- ❑ Print label S/N and attach it on drum motor side base frame with another 4 labels
- ❑ For Autoloader-ready base machine only: put on the top trims and adjust the height of hood latch, make sure that it can hold the hood securely
- ❑ Replace hood
- ❑ Apply appropriate configuration sticker 40mm left from Trendsetter label
- ❑ Attach small service S/N label on power box side bottom trim
- ❑ Replace all bottom trims, make sure that those two bottom trims on back panel side have bottom flange cut out and one on the power switch side has two labels: Laser class 1 and 21CFR1040 on it
- ❑ Check if the pdoor cover is on the pdoor
- ❑ Clean the table arborite, Windex is preferred, don’t apply orange fragrance solvent spray on the edge since it discolors the arborite edge
- ❑ Drill a 10mm dia. hole in the frame, clean the burs and fix the table with 57-8255a(5080 drum) or 57-8256a(5880 drum) counter weight retainer bracket, use one 52-3158 M10 nylock nut, one 52-3284 M10x20 sock-cap screw and the screws on the counter weight bracket to hold the retainer bracket
- ❑ Take off all table rubber bumpers and put them in shipping kit
- ❑ Check if all guard rail spacers stay inside the top panels
- ❑ Use correct size table support crate to fix the table at up position
- ❑ Put one 52-4011 washer above each spacer to prevent the top panel being pulled by the screw
- ❑ Use one 52-4651 M8*80 sock-cap screw and one or two 52-3236 M8 heavy washer to tie the crate on the top of the top panels (use two washers on power box side, one washer on the other side)
- ❑ Disconnect air line and power cord
- ❑ Dismount air line coupling and return it to main frame assembly
- ❑ Put orange plug in air line fitting and chiller line fittings if equipped
- ❑ Put plugs in the fittings going to MCU/SCU and/or L-conveyor as applicable
- ❑ For SSR only: clean one spot of conveyor side side panel with alcohol and apply foam strips
- ❑ For garage deck only: clean one spot of each side panel with alcohol and apply foam strips
- ❑ Replace both side panels
- ❑ Replace both back panels
- ❑ Clean all panels and do necessary touch up
- ❑ Go over Disassembly check list
- ❑ Go over Shipping kit check list
- ❑ Inform Shipping department that machine is ready for shipping

9. Additional Items For Customer Site Upgrade Only

- ❑ Assemble hose configuration kit and put into the shipping kit
- ❑ Tap the screw holes on stiffener bars, assemble complete support arms with all the fasteners and put them into the shipping kit
- ❑ Tap all the screw holes on the counter weight and counter weight addition, clean all the burs inside the holes and put them into the shipping kit
- ❑ Disassemble the genine 0 board, bag it into antistatic bag and put into shipping kit
- ❑ Take all the cables connecting to bulkhead off the base machine, tie them together with tie wraps and put into the shipping kit
- ❑ Put CreoScitex, Trendsetter, model no. and safety labels on the right position on the hood and tie all the tubes and cables with tie wraps if applicable
- ❑ Wrap all table arborite plates with bubble foam and put into shipping kit