

Richmond Conveyor Shingle-Vator Installation Manual

January 2013



This Manual includes operating and installation instructions for the following models:

16' to 24' electric Shingle-Vator with truck mount system

16' to 24' hydraulic Shingle-Vator with truck mount system

16' to 24' electric Shingle-Vator mounting to an existing truck mount system

16' to 24' hydraulic Shingle-Vator mounting to existing truck mount system

Table of Contents

Operators manual

Removing conveyor from truck

Maintenance checklist

Safety information

Index

Installation kit material list

Installation mounting manual

Installation of Shingle-Vator to an existing truck mount system

Warranty

Warranty information sheet

Operator's Manual

Thank you for choosing a Richmond conveyor.

Pre-use inspection

Before using the conveyor, check the conveyor over for any hydraulic leaks (applies to hydraulic unit only), loose bolts, loose drive chain, loose belt, loose conveyor chain, bearings, etc.

STEP 1

To operate the conveyor, first position your truck so the truck is level making sure the parking brake is set.

STEP 2

Remove tie down strap from the bulkhead to the conveyor.

STEP 3

Make sure the diverter valve is in the conveyor position (applies to hydraulic unit only).

STEP 4

Engage the PTO and the pump valve lever if necessary (applies to hydraulic unit only).

STEP 5

Lift the conveyor into position by using the control lever or by pumping the jack up. The conveyor must be set down on the roof stand before conveyor chain can be put into motion.

STEP 6

When the conveyor is in position and ready to operate, engage the motor valve to the forward position to start the conveyor chain in motion on a hydraulic conveyor or turn on the switch to forward on an electric conveyor.

STEP 7

Adjust the flow control valve for the desired speed. Do not run the conveyor chain any faster than necessary (applies to hydraulic unit only).

STEP 8

When you are done putting shingles on the roof, shut off the conveyor chain by putting the conveyor chain valve in the neutral position or the electrical switch into the neutral position.

STEP 9

Then move the conveyor back to the cradle position on the truck.

STEP 10

Disengage the pump and PTO on the truck (applies to hydraulic unit only).

STEP 11

Then strap the conveyor back down to the cradle.

IMPORTANT: Do not drive the truck with the conveyor unstrapped. Do not use the truck material straps to tie down the conveyor. Strapping the conveyor in the middle can cause damage. Do not drive the truck with the PTO engaged.

Removing Conveyor from Truck

STEP 1

Unstrap the conveyor from the bulkhead.

STEP 2

Move the conveyor to the side of the truck so the conveyor is level with the ground.

STEP 3

Remove the locking bolt from the pocket.

STEP 4

Disconnect the quick release on the hydraulic lines below the truck bed
(applies to hydraulic unit only).

STEP 5

Pick conveyor up with a forklift in a balanced position.

STEP 6

Raise forklift very slowly, only a few inches at a time, Make sure the post is sliding out
of the pocket.

NOTE: Reverse the steps to install

WARNING: When removing the conveyor in the winter, make sure the conveyor
post is not frozen in the pocket.

Maintenance Checklist

Spray chain lube on the conveyor chain every two weeks.

Grease $\frac{3}{4}$ " and 1" bearings one pump every four months.

Check for loose gears or sprockets.

Check for stress cracks in the metal components.

Check for loose bolts and paddles.

Check for hydraulic leaks.

Lubricate spool valve of the diverter valve and emergency shut off valve every two weeks making sure the valves work in and out freely

Safety Information

The conveyor is equipped with an emergency stop valve. This valve is designed so the operator can push the valve in at any time to shut down the conveyor chain (applies to hydraulic unit only).

Hydraulic lift is equipped with a restrictor. The restrictor is not to be removed. Removal could cause serious damage to the conveyor or injury to the operator.

At all times the conveyor must be put in the cradle and tied down with the strap provided on the conveyor when truck is in motion.

Do not ever unload shingles without the roof stand in place supporting the end of the conveyor.

Index

STEP 1	Determining pocket selection
STEP 2	Install pocket
STEP 3	Install pocket pipe
STEP 4	Install mounting pocket
STEP 5	Install conveyor and conveyor support plate
STEP 6	Install jack or cylinder
STEP 7	Mounting bulkhead support

NOTE: Electric conveyor installation is now complete. Continue with the following steps for a hydraulic unit.

STEP 8	Hydraulic hose access
STEP 9	Mounting diverter valve
STEP 10	Install hydraulic port in hydraulic tank
STEP 11	Install hydraulic return line
STEP 12	Install pimp and hoist hoses
STEP 13	Install diverter valve hoses
STEP 14	Testing conveyor
STEP 15	Testing features

Installation Kit Material List

Installation manual

Operator's manual

Post

Conveyor

Pocket

Bulkhead cradle bracket

For Hydraulic Unit Only:

Diverter valve

Adapters for diverter valve

Angle iron bracket for diverter valve

½" pipe elbow

2-1/2" hoses 15 feet long (10for pressure to diverter valve/ 1-for return to tank)

Shingle-Vator Mounting Instructions

STEP 1

Decide on the location of the picket, left, right or center mount. Make sure the truck bed can hoist to the full capacity with the picket in the position you would like it.

STEP 2

The pocket installs from the bottom side of the truck bed. You may either bolt or weld the picket in place. We recommend you do both.

The pocket plate is 18 inches square. You can cut the size of the pocket plate down if necessary to fit the pocket between the stringers of the truck bed. Do not remove any more material than is necessary and do not remove any part of the gussets

If you need to cut the pocket plate down, you may have to re-drill the holes for the bolts.

You will need to cut a 4 ¼" hole in the floor of the truck bed to allow the post to be installed.

Do not use bolts smaller than 5/8" to bolt unit into place.

Be sure to weld all the way around pocket plate and if necessary, gusset pocket back to truck stringers.

STEP 3

After completion of the pocket install you then install the pocket pipe and bolt into place.

STEP 4

Slide the 4" square tube with mounting bracket over the pocket pipe and tighten swing lock bolt.

STEP 5

Now you are ready to set into place the conveyor and conveyor support cradle.
Bolt into place at hinge point.

STEP 6

Bolt into place pump jack or hydraulic cylinder.

STEP 7

You now need to weld or bolt into place the cradle support. Install onto the bulkhead support of the truck bed. Use the cargo strap provided to hold down the conveyor into position for transporting.

WARNING: Do not move the truck without the conveyor being strapped down.

If you have an electric unit, your installation is complete. If you have a hydraulic unit, continue with the following steps.

STEP 8

Cut a hole approximately 2" x 4" in the top plate on the valve side of the pocket to allow the hydraulic hoses to pass through. Line the edge of the hole with the 1/8 x 3/4 flat so no sharp edges protrude.

STEP 9

You are now ready to install the hydraulic components on your conveyor

In the kit you have a two way diverter valve, a 20" piece of 2 x 3 x 3/16 angle iron and a small piece of 1/4" plate. Use this to mount the diverter valve to the frame of the truck. Mount the valve to the frame of the truck. Mount the valve to the frame on the driver side towards the front of the bed keeping in mind the hydraulic hose running from the conveyor to the diverter valve is 15 feet long so you may want to run that hose along the frame of the truck first.



STEP 10

Next you need to put a ½" return port into the hydraulic tank. On the top side of the tank locate the area that is away from any outlet ports. Drill a ½" hole in the tank. Weld in place the ½" elbow provided in the kit.



STEP 11

Run the return line from the quick coupler on the conveyor to the elbow you welded into place.

Note: The hoses provided are Aeroquip hoses and fittings. DO NOT cut and crimp fittings on to the hoses. If the hose is too short, you can make an extension hose and add on to the hose. DO NOT alter the hoses provided.

PORT "A" - ½" hose from conveyor

Port "B" - ½" hose from truck hoist



PORT "C" - ½" hose from pump

STEP 12

Run a ½" hydraulic hose from the power side of the truck bed hoist to the "B" port of the diverter valve.

Note: This hose is not provided.

Hoist to diverter valve hose extension (port "B" diverter valve)



Pump to diverter valve. Hose connection to the pump (port "C" on diverter valve)

STEP 13

Run a ½" hydraulic hose from the hydraulic pump to the inlet side of the diverter valve-port "C".

Note: This hose is not provided.



STEP 14

You should be ready to test the conveyor.

On a PTO and external pump system, you will just have to engage the PTO. On a PTO and internal pump system, you will need to engage the PTO and the hoist valve. Make sure the diverter valve is in the conveyor position.

STEP 15

Test the conveyor's raise and lower feature and chain motor. Work the raise and lower lever several times to get the air out of the system.

Shingle-Vator Mounting Instructions to an Existing Truck Mount System

STEP 1

Remove existing shingle conveyor from truck mount system by removing the ½" nuts and threaded rods that go through the angle iron cradle.

STEP 2

Mount into place the new shingle conveyor on the existing angle iron cradle.

STEP 3

Install ten 3/8" bolts (five on each side) of the angle iron cradle. Most cradles are 10' long. The five bolts on each side need to be spaced out equally along the cradle. Start by marking the first hole 2" to 6" in from each end and then equally spacing the remaining three holes between the two end bolts.

STEP 4

Drill a 3/8" hole in each of the places you marked for the bolts.

STEP 5

Install the bolts and nuts and tighten them.

Note: At this point the electric unit is done.

STEP 6

If you purchased a hydraulic system, you will need to remove the pump jack and then install the hydraulic cylinder.

STEP 7

Continue with steps 8 through 15 in the front of the manual under Shingle-Vator mounting instructions.

Richmond Bros. Fab.

7911 Murdoch Rd, Bay Port MI 48720, 989-453-7097

LIMITED WARRANTY

Richmond Brothers Fabrication (hereinafter "Manufacturer") guarantees that products are free from defects in workmanship or material for a period of 12 months from the date of shipment. This warranty shall exist for any particular defect only if

- A. Buyer returns warranty card within 30 days after taking delivery. Buyer must verbally or in writing contact the Manufacturer for authorization of warranty or no warranty applied within the first 12 months after purchase.
- B. Manufacturer determines to its reasonable satisfaction on inspection that the products are, and have been, subjected only to ordinary use and service.

This warranty does not cover damage through accident or misuse. Manufacturer's warranty is limited to replacing any products that are proved to be defective. Manufacturer shall not be liable for any loss, damage or injury resulting from delay in delivery or installation of the products or for any failure to perform which is due to circumstances beyond its control.

The maximum liability, if any, of Manufacturer for all damages, including without limitation, contract damages and damages for injuries to persons or property, whether arising from Purchaser's breach of this agreement, breach of warranty, negligence, strict liability or other tort, is limited to an amount not to exceed the purchase price of the products as issue in the dispute. In no event shall Manufacturer be liable to Buyer for any incidental, consequential or special damages, including without limitation, lost revenues and profits, inconvenience and expense for substitute equipment or service, even if it has been advised of the possibility of such damages.

No implied warranty, including any implied warranty of merchantability of fitness for a particular purpose, applies to the Manufacturer's products after the applicable period of express warranty stated above and no other express warranty or guaranty, except as mentioned above, given to any person or entity with respect to the Manufacturer's products shall bind the Manufacturer. Without limiting the foregoing the Buyer assumes all risk and liability for loss, damage or injury to Buyer and Buyer's property and to others and their property arising out of use or misuse of or inability to use, the Manufacturer's products not caused directly by the negligence of the Manufacturer.

This limited warranty shall not extend to anyone other than the original purchasing party of Manufacturer's products. Manufacturer makes no warranty concerning the compliance of the products with any local, state or federal laws or regulations, including without limitation electrical, building or other codes or requirements. Buyer agrees to accept full responsibility for complying with such laws, regulations, codes and requirements.



Warranty Information Sheet

Please fill out in full and return upon completion of the installation process. This form must be filled out and returned for the warranty to be valid. Make a copy for your records and return original to Richmond Brothers Fabrication, 7911 Murdoch Rd., Bay Port, MI 48720

Conveyor purchased by: _____
Company Name: _____
Contact person: _____
Address: _____
PH: _____
FX: _____

Conveyor installed by: _____
Company Name: _____
Contact person: _____
Address: _____
PH: _____
FX: _____

Name if person(s) who installed conveyor: _____

Date conveyor was received by company: _____
Date conveyor was installed: _____

Signature of installer: _____

Signature of representative: _____
(conveyor owner)