

Quick Pick Range Ball Picker

In-Line Configuration

(QP5SA1, QP10SA2, QP10SA3, QP15SA4)



Figure 1: 10-Foot In-Line Configuration Range Ball Picker (QP10SA3)

Parts List

Your ball picker comes with the following parts:

Part Name	Quantity
5-foot Section Gang(s)	(1) (2) (3)
Ball Deflector Unit (10- and 15-foot pickers only)	(1) (2)
Connecting Collar (10- and 15-foot pickers only)	(1) (2)
Range Picker Basket	(3) (6) (9)

Note: Numbers in parentheses indicate parts for 5-foot picker, 10-foot picker, and 15-foot picker respectively.

The A-frame, which is purchased separately, and which you must usually have to attach the picker to the pushing vehicle, comes with the following parts:

Part Name	Quantity
A-frame	1
Mounting Brackets	2
Quick Release Pins	2

Tools

You will need the following tools:

Tool	Quantity	Purpose
½" wrench	1	Ball deflector rubber mount
7/16" wrench	2	V-shaped deflector; chain on collar

Assembly

Step 1: Remove all parts from the shipping crate(s)

Step 2: Open the parts box

Step 3: Attach the mounting brackets to the pushing vehicle

- Use hardened bolts (not included in the parts box) or weld the bracket directly to the vehicle

Attach the two mounting brackets to a solid bumper or mounting frame on the front of the vehicle that will be used to push the picker. (Use the A-frame to determine the placement of the mounting brackets.) If necessary, attach each bracket to the back of the A-frame with the quick release pins, and use the brackets to mark the placement of the holes.

Step 4: Remove the picker gang(s) from the shipping skid(s)

- Locate the bolts at each end of the skids. Remove these bolts to remove the gang section(s).

NOTE: If you are assembling the 5-foot picker, skip to Step 7.

Step 5: Attach the ball deflector(s) (for 10- and 15-foot pickers only)

- The ball deflectors go between the picker gangs (see Figure 2). For the 10-foot picker, there is one ball deflector. For the 15-foot picker, there are two ball-deflectors.

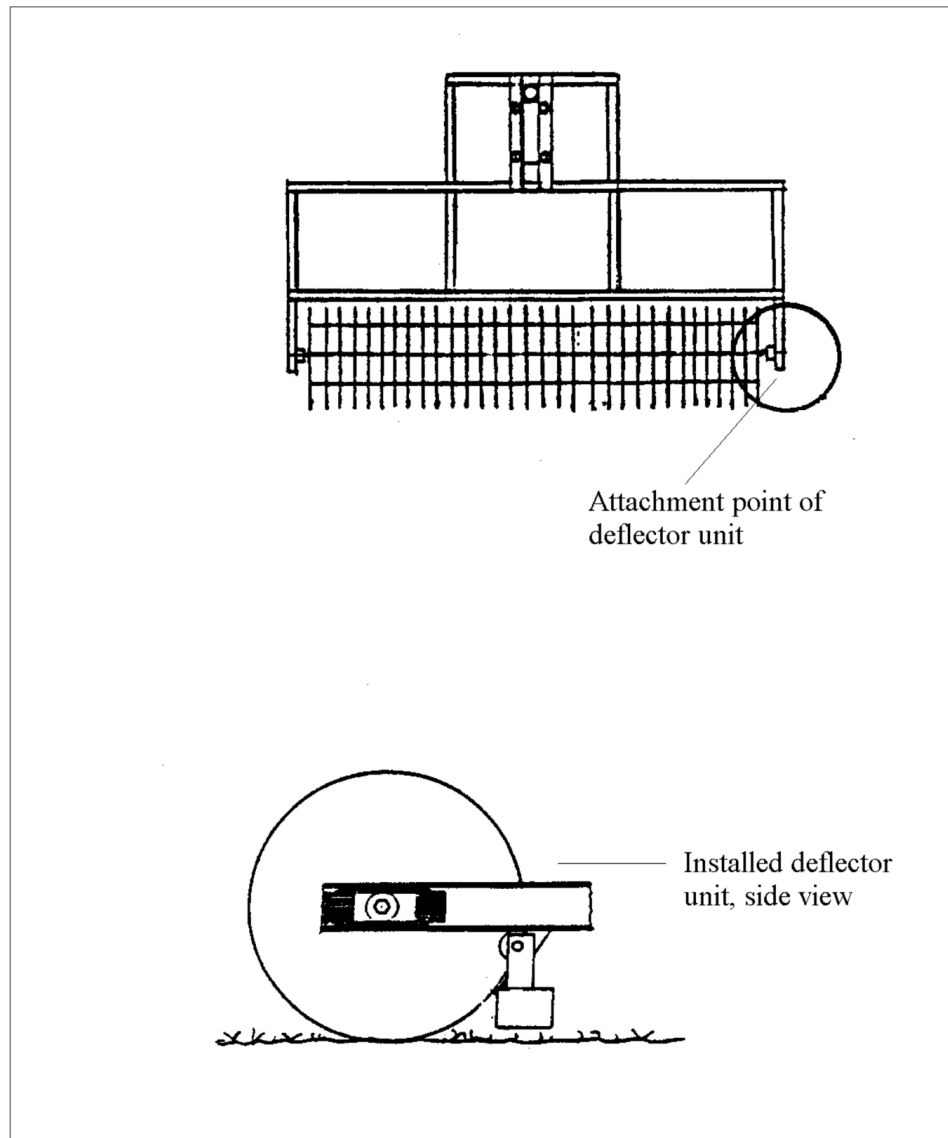


Figure 2: Ball Deflector Unit and Attachment, Enlarged View

- Look at both ends of a picker gang. The one with the slightly larger hole (on the right side) is used for the ball deflector unit. This end should be the one between two picker gangs.
1. Align the picker gangs side by side. Allow enough room between the gangs to install the ball deflector units.
 2. Find the silver V-shaped ball deflector (packaged separately from the unit).

3. Remove the “V” from its mounting post. This is essential so you can screw in the deflector post.
4. Remove the nut at the end of the deflector’s rubber mount.
5. With your hand, tighten the rubber mount to its post to secure it.
6. Thread the rubber mount through the angled piece of steel that hangs down from the picker frame.
7. Secure the rubber mount with the nut.
NOTE: The post must point toward the ground and be snugly attached to the angled piece of steel. Use the nut to adjust the rubber mount until the post is pointing straight down toward the ground. **Do not overtighten.**
8. Attach the V-shaped deflector through one of the holes in the post. Choose a hole that will allow the deflector to operate at a height that will accommodate your terrain.
9. Slide the washer next to the deflector.
10. Screw a nut over the washer to secure the deflector.

For 15-foot pickers: Repeat steps 1-9 for the additional deflector unit.

Step 6: Join the picker gangs together (for 10- and 15-foot pickers only)

- Locate the connecting collar and chain.
1. Place the picker sections side by side in a straight line so that they are as close together as possible, with the ball deflector units between the pickers (see Figure 3).

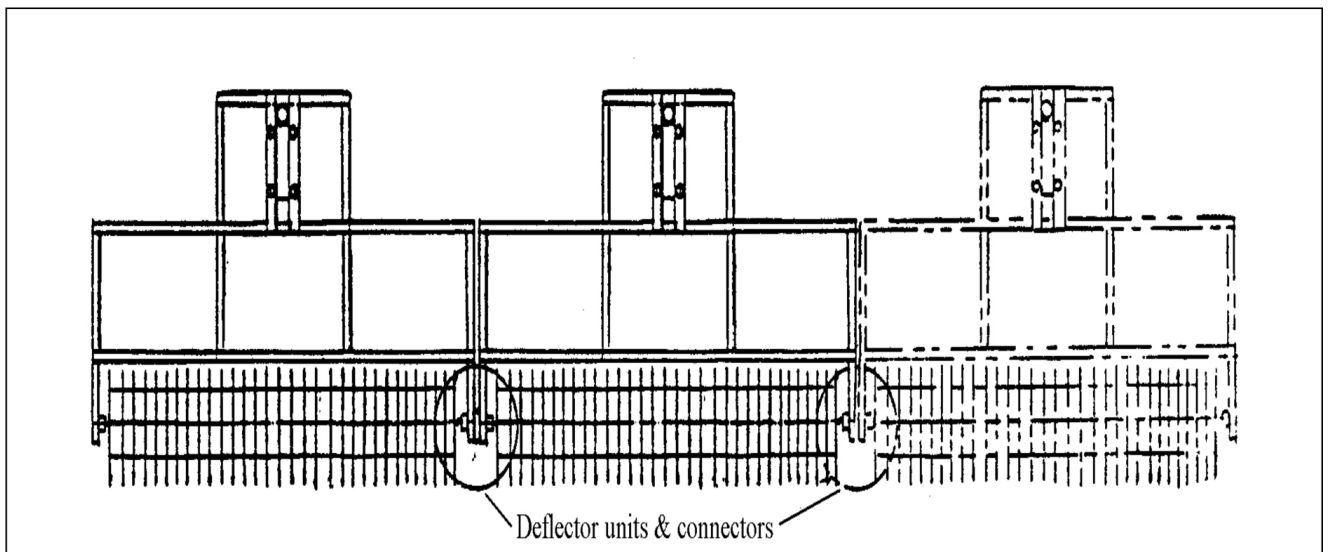


Figure 3: Joined picker gangs, 15-foot picker

2. Position the pickers so that the flat collar posts on the end abut each other.
3. Slide the square connecting collar over the upright collar posts.
4. Secure the collar in place with the chain, nut and bolt.
5. Slide the chain bolt through the small hole on the frame at the end of the picker.
6. Slide on a washer.
7. Screw on a nut to secure the chain bolt.

Step 7: Place three (3) picker baskets in each picker section

NOTE: The high side of each basket should be away from the discs.

NOTE: If you are assembling a 5-foot picker, proceed to step 10.

Step 8: Attach the draw bar (10- and 15-foot pickers only)

NOTE: The middle hitch coupler, which attaches to the A-frame, should be facing away from the discs. The hitch couplers face forward (away from the pushing vehicle).

1. Place a hitch coupler on the draw bar over the corresponding hitch ball on a gang section.
NOTE: To extend the life of the coupler and ball, put a small amount of grease inside the coupler.
2. Secure the coupler and ball by pushing down on the coupler lever.
3. Repeat for the remaining gang section(s).

Step 9: Attach the frame chains (SP10SA2 model only)

- Locate the chains on the draw bar (see Figure 4).
 - Locate the hole on the wheel mounting bracket through which you will bolt the draw bar chains.
1. Place a hitch coupler on the draw bar over the corresponding hitch ball on a gang section.
NOTE: To extend the life of the coupler and ball, put a small amount of grease inside the coupler.
 2. Slide the bolt on the chains through its corresponding hole on the wheel mounting bracket.
 3. Slide a washer over the bolt.
 4. Screw a nut over the washer to secure the bolt snugly.
 5. Repeat for second hitch coupler.

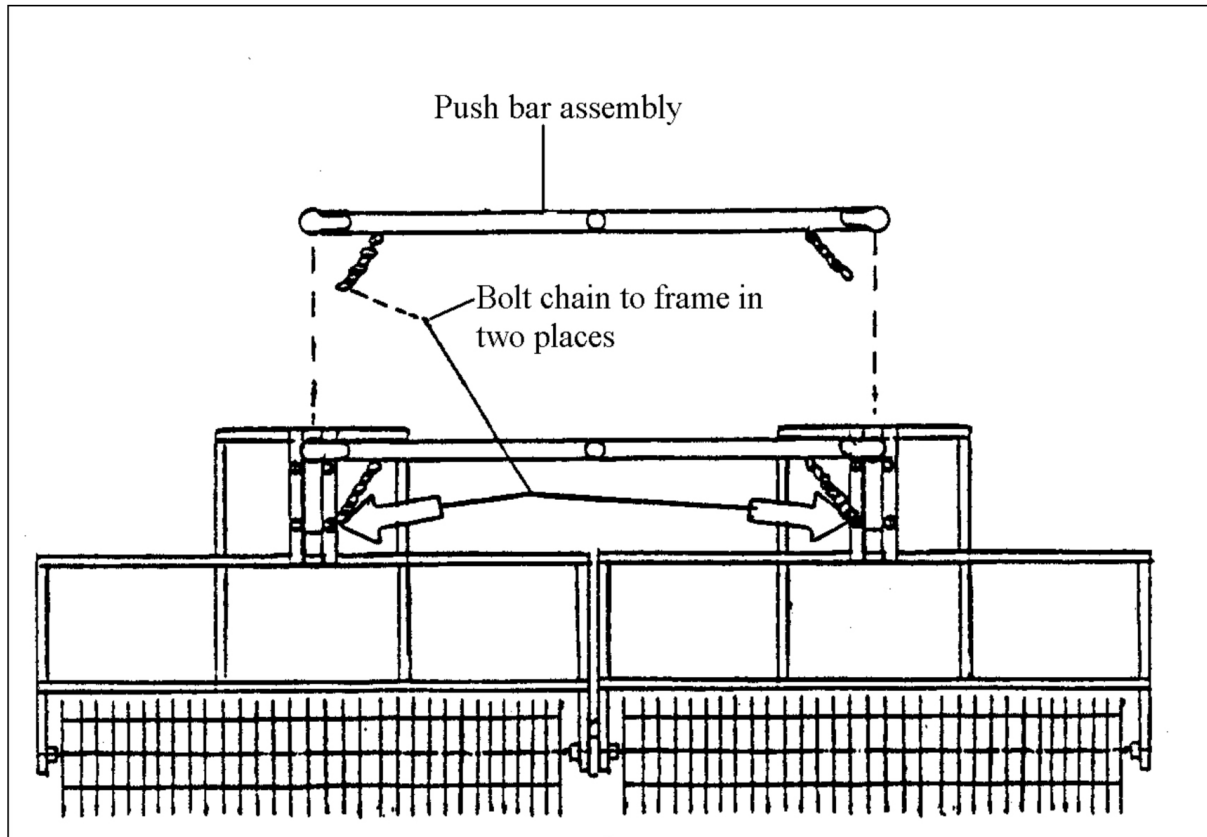


Figure 4: Frame chain attachment (SP10SA only)

Step 10: Attach the A-frame to the gang section(s)

1. Place the (middle) hitch coupler over the hitch ball on the front of the A-frame.
2. Secure the coupler and ball.

Step 11: Attach the A-frame to the pushing vehicle with the brass quick-release pins

Unit Specifications

Your picker meets the following specifications:

Unit	Capacity	Width	Weight
QP5SA1	750 balls	5 feet	154 lbs.
QP10SA2	1500 balls	10 feet	323 lbs.
QP10SA3	1500 balls	10 feet	377 lbs.
QP15SA4	2250 balls	15 feet	549 lbs.

Routine Maintenance

Your picker is designed to be used on grass or sod, and pushed by limited-power vehicles, such as golf carts. If you drive on a more rugged terrain, you need to adjust your maintenance schedule accordingly. Avoid driving the picker on concrete, crushed stone, or asphalt.

Follow the following routine maintenance schedule:

Frequency	Task
Daily	Check the spacing of the discs and finger plates. The discs should not be touching the finger plates (see Troubleshooting for more information).
Weekly	Grease the caster wheels.
Weekly	Check the wheel axle bolts to make sure they are tight.
Weekly	Check the tire pressure and make sure there is air in the tire.
Weekly	Check the threaded spool rods to make sure that they are tight (see Troubleshooting for indications that the rods are loose).

Call the company if you have any questions about the terrain of your driving range, or about any technique you may need to use to assure that your picker operates efficiently.

Troubleshooting

With routine maintenance, your picker should operate efficiently. Occasionally, however, you may encounter a problem. Listed below are some common problems and recommended solutions.

Problem	Reason	Solution
Balls are being tossed over the back of the baskets.	The picker is being driven too fast.	Slow down.
The picker is not picking up all the balls.	<ul style="list-style-type: none"> The picker is being turned too sharply The spool rods are loose 	<ul style="list-style-type: none"> Turn the picker less sharply. Straight driving and wide, sweeping turns provide the most effective picking. Tighten the nuts at the ends of the threaded rods. <p>TIP: As part of your routing maintenance, check the spool rods to see that they are snug.</p>
Discs are wearing more heavily than expected.	The picker is being driven over a surface other than grass or sod.	Drive the picker only on grass or sod.
A disc is broken.	<ul style="list-style-type: none"> The pushing vehicle is being driven over the disc at the ends of the picker The picker is being driven too fast The picker is being driven on terrain for which it is not designed 	<ul style="list-style-type: none"> Call the company Slow down; replace the disc (see directions below) Call the company

Directions for replacing a disc:

1. Remove the bearing mounting bolts on the side of the black frame that holds the spool axle in place (see Figure 5). The disc spool is now free from the picker frame.

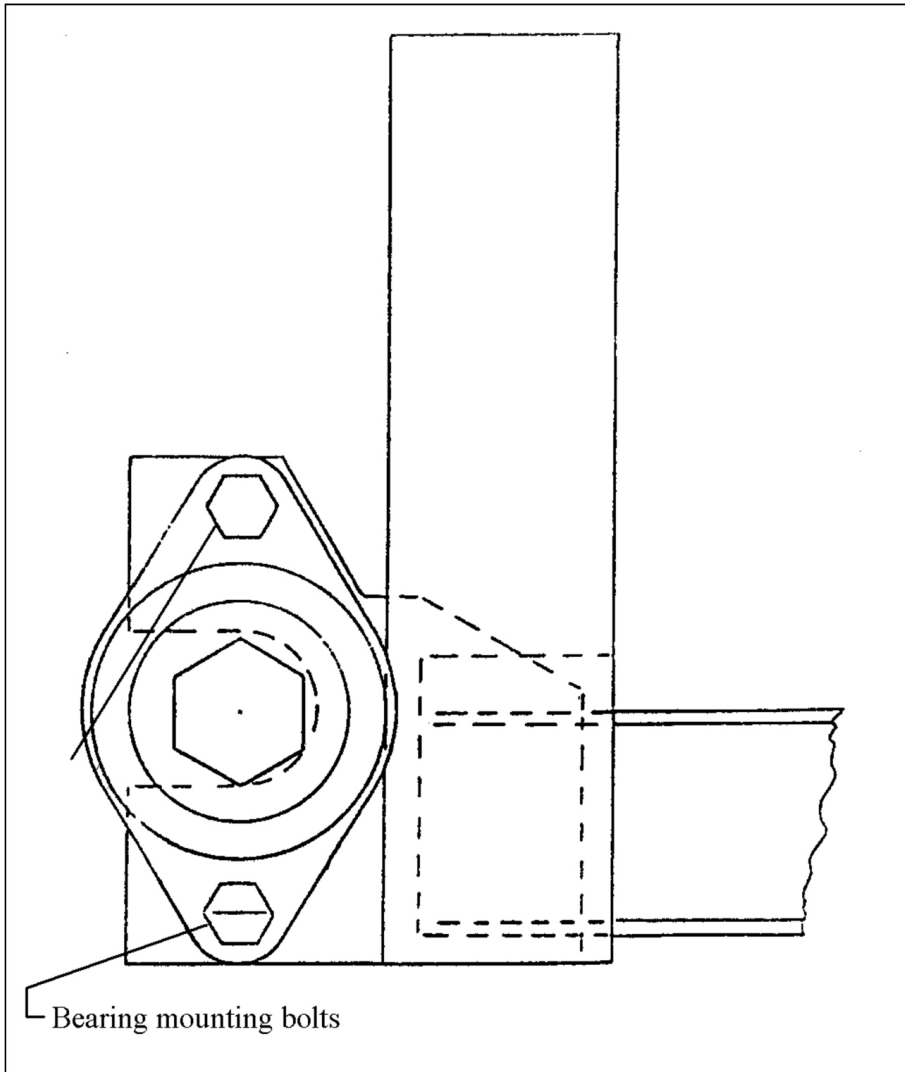


Figure 5: Side of frame showing bearing mounting bolts

2. Slide the spool out of the frame.
3. Pull out one axle bearing as a unit, with plugs, from the axle (see Figure 6).
NOTE WHETHER OR NOT YOU HAVE REMOVED THE BEARING UNIT WITH THE SPRING PIN. THIS BEARING UNIT NEEDS TO BE ON THE RIGHT SIDE OF THE PICKER FROM THE POINT OF VIEW OF THE PUSHING VEHICLE.
4. Slide the axle out of the disc spool. NOTE: Do not try to unscrew the large bolt.

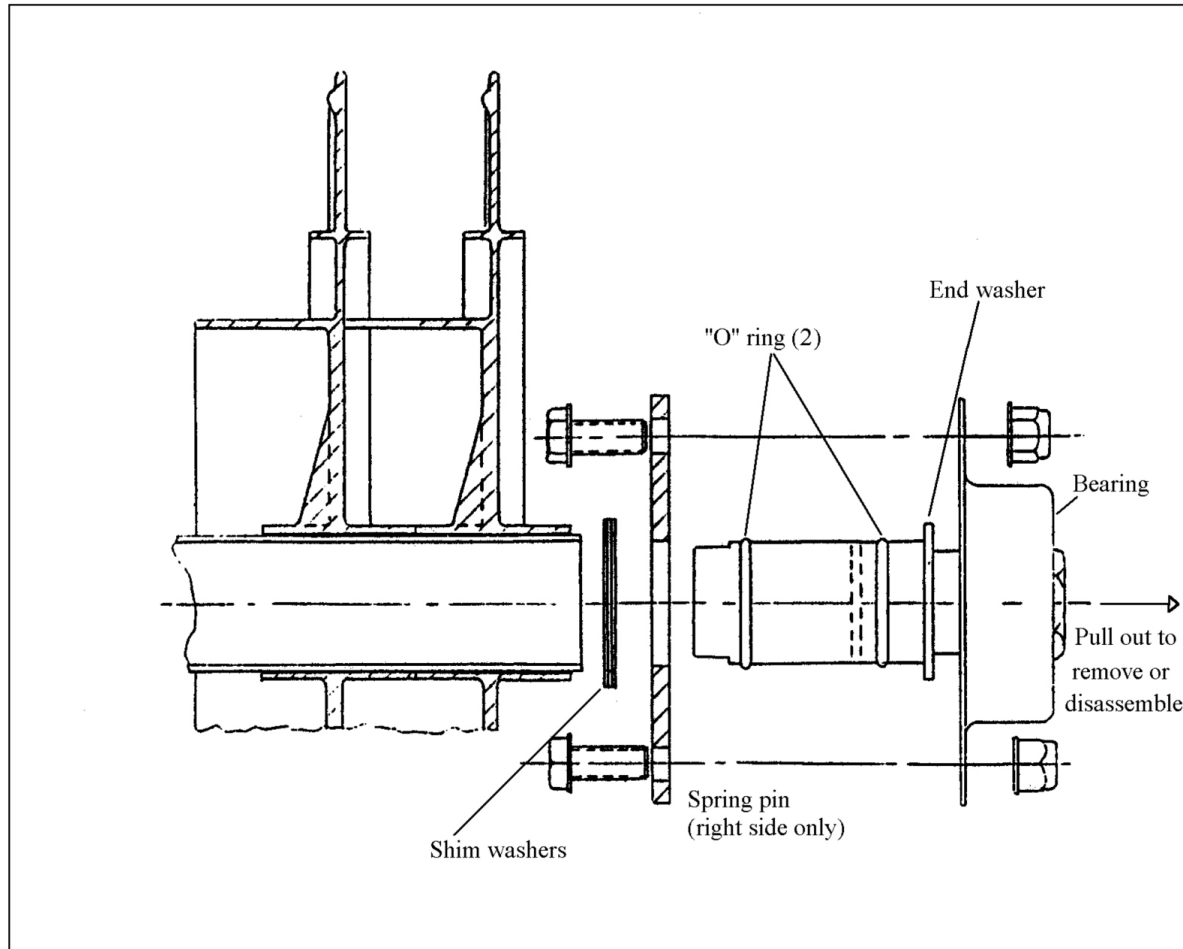


Figure 6: Disc spool and picker frame, disassembled

5. Locate the nuts on each side of the disc spool.
6. With a 9/16" wrench on each end of the spool, remove a nut on one end while holding the other end of the spool. Repeat for all four nuts.
7. Remove the discs that precede the broken disc, then remove the broken disc.
8. Replace the broken disc.
9. Replace the preceding discs.
10. Slide the axle back onto the disc spool.
11. Coat the removed plug with an anti-seize lubrication.
12. Replace the removed axle plug. NOTE: The disc bearing assembly with the pin must be on the right side of the picker from the point of view of the pushing vehicle.

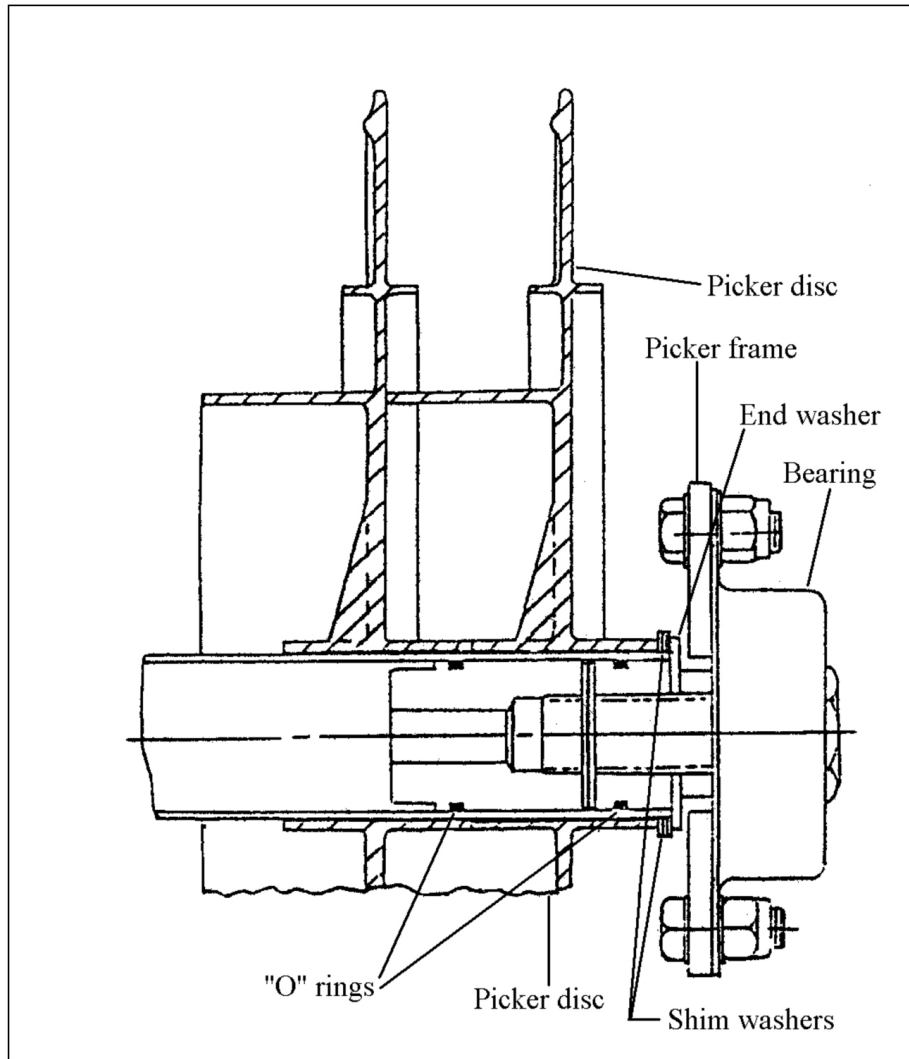


Figure 7: Disc spool and frame, assembled

13. Replace the nuts snugly on the disc spool.
14. Put the spool back in the frame (see Figure 7). Center the spool on the axle with shim washers, as necessary.
15. Reattach the bearing mounting bolts that hold the spool axle in the frame.

Contacts

If you have any questions about your picker, contact

Hollrock Engineering, Inc.
Phone: (413) 586-225
info@hollrock.com

Mailing Address: P.O. Box 378
Hadley, MA 01035

