

L & W LIFT SYSTEM Viking & Jayco

HOW TO REPAIR A CRANK LIFT SYSTEM

NOTE: ALWAYS RAISE AND LOWER ROOF SEVERAL TIMES AND MAKE SURE THE DOOR FITS PROPERLY AFTER ANY LIFT SYSTEM REPAIRS.

REPLACING THE TELESCOPING LIFT ARMS

1. Raise the unit.
2. Remove the tent from the curtain tent track at the top of the roof side.
3. Remove the lift arm cover.
4. Brace the roof up on all four corners between the end wall cap and the roof 'H' rail.
5. Remove the screws from the sidewall cap and lift it up from the body of the unit. NOTE: DO NOT UNTUCK THE TENT.
6. Remove the top arm bolt. CAUTION: ONLY CHANGE ONE ARM AT A TIME.
7. Crank the winch all the way down.
8. Remove the arm by lifting out of the sidewall pocket.
9. Replace the arm.
10. When replacing the arm, make sure the screw in the bottom of the goes to the inside of the coach.
11. Reverse steps 2 through 7.
12. Adjust the height of the roof if needed (See adjusting roof height).

REPLACING THE WINCH

1. Raise the unit.
2. Remove the winch cover found in cabinet or dinette seat.
3. Brace the roof up. Use caution.
4. Crank the winch down 4 or 5 times.
5. Remove the nuts on the eye bolts; these are located in the harness square.
6. Remove the bolts that hold the winch to the floor.
7. Remove the screws that hold the winch to the sidewall.
8. Remove the winch.
9. Install the main cable on the new winch.
10. Place the new winch in the unit.
11. Reverse steps 2 through 7.
12. Adjust the roof height if necessary. (See adjusting roof height.)

REPLACING THE EYE BOLTS

1. Raise the roof.
2. Remove the winch cover inside cabinet or under dinette seat.
3. Brace the roof up.
4. Crank the winch down 4 or 5 turns.
5. Remove the nuts from the eye bolt found on the harness square.
6. Remove the cable from the eye bolt. Bend they eye open just far enough to slip the cable off.
7. Place the cable on the new eye bolt. Bend they eye open just far enough to slip the cable on, and bend the eye shut.
8. Reverse steps 2 through 5.
9. Adjust the roof height if necessary. (See adjusting roof height.)

REPLACING THE 3/32" LIFT CABLE

1. Raise the roof.
2. Remove the winch cover inside the unit.
3. Brace the roof up.
4. Crank the winch 4 or 5 times.
5. Remove the nut from the eye bolt found on the harness square.
6. Remove all necessary dividers, step-ups and cable covers.
7. Remove the lift arm. (See removing telescoping arm.)
8. Remove the spring. (See steps for replacing spring.)
9. Pull the cable through all pulleys and out of the spring track. Carefully note the route of the cable through the various pulleys so that installation of the new cable will be correct.
10. Remove the slug from the cable, when you put the slug back into the spring track, make sure the wide slot goes in the same corner as the pulley.
11. Feed the cable back through the pulleys, starting from the winch.
12. Reverse steps 2 through 10.
13. Adjust roof according to the roof height adjustment steps.

REPLACING THE DOUBLE PULLEY WITH BRACKET

1. Raise the roof.
2. Brace the roof up.

3. Crank the winch 4 or 5 times.
4. Remove the bolts from the pulley track. (The pulley brackets are located on the sidewall and the floor in opposite corner from the winch.)
5. Break the pin weld on the bracket and pry apart. Drill through the bracket to remove the weld area or split the two metal pieces with a chisel. Drill from the backside of the bracket.
6. Remove the cables from the pulley. NOTE: If the cables are on top or bottom side of the pulley.
7. Break the pin weld on the new bracket and place the cable back in the same place. Drill from the backside of the bracket.
8. You don't have to weld the new bracket; a bolt will hold it when you put it back in place.
9. Reverse steps 2 through 6.
10. Make sure the cables do not rub on the wheel well.
11. Adjust roof according to the roof height adjustment steps.

REPLACING THE 2 x 2 STEEL BLOCK (HARNESS SQUARE)

1. Raise the roof.
2. Brace the roof up.
3. Crank the winch 4 or 5 times.
4. Remove the winch cover.
5. Remove the nuts from the eye bolts.
6. Remove the main cable from the winch. (See main cable replacement.)
7. Remove the 2 x 2 steel block from the cable.
8. Reverse steps 2 through 7.
9. Adjust roof according to the roof height adjustment steps.

REPLACE THE CURVED BRACKET WITH AND WITHOUT PULLIES

1. Raise the roof.
2. Brace the roof up.
3. Remove the lift arm. (See lift arm replacement.)
4. Remove the spring. (See spring replacement.)
5. Unbolt the curved bracket from the floor.
6. Unscrew the curved bracket from the sidewall.
Note: If you are replacing the curved bracket in the winch corner, you must remove the winch (See winch replacement.)
7. Install the new bracket.
8. Reverse steps 2 through 7.

9. Adjust roof according to the roof height adjustment steps.

REPLACE THE SPRING

1. Raise the roof.
2. Brace the roof up.
3. Crank the winch 4 or 5 times.
4. Remove the arm. (See arm replacement.)
5. Remove the spring.
6. Remove the spring rivet from the end of the spring and use on new spring.
7. Replace the spring. NOTE: When placing the spring back into the spring track, you might have to pry up on the spring to guide it in the spring track.
8. Reverse steps 2 through 7.
9. Adjust roof according to the roof height adjustment steps.

REPLACING THE SPRING TRACK WITH OR WITHOUT PULLEYS

1. Raise the roof.
2. Brace the roof up.
3. Remove the lift arm. (See lift arm replacement.)
4. Remove the spring (See spring replacement.)
5. Pull the cable out of the spring track and pulley, if the track has a pulley on it.
6. Remove the necessary cabinets.
7. Unbolt the spring track from the floor.
8. Replace the track.
9. Repeat steps 2 through 7.
10. Adjust roof according to the roof height adjustment steps.

REPLACING THE SPRING RIVET

1. Raise the roof.
2. Brace the roof up.
3. Crank the winch down 4 or 5 turns.
4. Remove the lift arm. (See lift arm replacement.)
5. Remove the spring rivet on the end of the spring.
6. Reverse steps 2 through 5.
7. Adjust roof according to the roof height adjustment steps.

REPLACING THE DRIVE SLUG

1. Raise the roof.
2. Brace the roof up.

3. Crank the winch down 4 or 5 times.
4. Remove the arm. (See arm replacement.)
5. Remove the spring (See spring replacement.)
6. Pull the cable out of spring track.
7. Remove the drive slug from the cable.
8. Place new drive slug on the cable.
9. Place the new drive slug back into the spring in the corner with the track pulley. If the track does not have a pulley, you turn the wide slot towards the lower front corner of the spring track.
10. Reverse steps 2 through 7.
11. Adjust roof according to the roof height adjustment steps.

REPLACING THE MAIN CABLE 3/16"

1. Raise the unit.
2. Brace the roof up.
3. Remove the winch cover inside the dinette seat or cabinet.
4. Crank winch down 4 or 5 turns.
5. Remove the cable keeper nut and bolt on the side of the winch spool. Unwrap the cable from the spool.
6. Pull the cable back through the 2 x 2 steel block (harness square) then remove.
7. Thread the new cable through the center hole of the 2 x 2 steel block (harness square). Make sure that the needle bearing and flat washers are in place between the crimp and steel block.
8. Thread cable through the winch spool and reattach with cable keeper.
9. Crank the winch to the up position, holding tension on the cable. Make sure you have two wraps of cable on the winch spool when unit is down.
10. Reverse steps 2 through 4.
11. Adjust roof according to the roof height adjustment steps.

NOTE: WHEN REPLACING ANY LIFT SYSTEM PART, YOU SHOULD ALWAYS RAISE AND LOWER THE UNIT 4 OR 5 TIMES TO MAKE SURE IT IS OPERATING PROPERLY. CHECK ROOF HEIGHT AND ADJUST IF NECESSARY. SET THE DOOR TO MAKE SURE IT IS STILL FITTING CORRECTLY.

ADJUSTING THE ROOF HEIGHT

1. Raise the roof. NOTE: USE ROOF SUPPORT ON CORNER BEING ADJUSTED 'G'. Measure from the bottom of the

'H' on the 'H'-rail to the edge of the sidewall cap. The measurement should be $47 \frac{1}{4}$ " , no more than $47 \frac{3}{4}$ " for earlier 4 stage units. If you don't have enough room for the upper door to fit properly, raise the rear arms to $47 \frac{3}{4}$ ". NOTE: For later 4 stage units the measurement is $46 \frac{1}{4}$ " with a maximum of $46 \frac{3}{4}$ ". Also, the 3 stage units with the higher side wall measurement was $42 \frac{1}{4}$ " to $42 \frac{3}{4}$ ".

2. If the measurements are not right, adjust the length of the bolts by moving the nuts one way or the other. Lengthen they eye bolt to lower, shorten eye bolts to raise.

3. To find out which eye bolt goes to which arm, pull an individual $3/32$ cable and watch which corner of the roof goes up.

4. After the roof height is adjusted properly, set the red vinyl cable so it is tight. Adjust the cable at the roof sideboard and move up. This cable will tell you when the roof is up to the correct height.

5. MAKE SURE THE NUTS ON THE EYE BOLTS ARE TIGHT.