



Installation Instructions

E-Series Clamp Revolving Connection Service Kit 214998

This sheet describes E-Series Revolving Connection removal and shaft seal service. The shaft seals can be serviced with the attachment mounted on the truck. If service is required on the end block or shaft, the attachment must be removed from the truck.

Removing the Revolving Connection Body

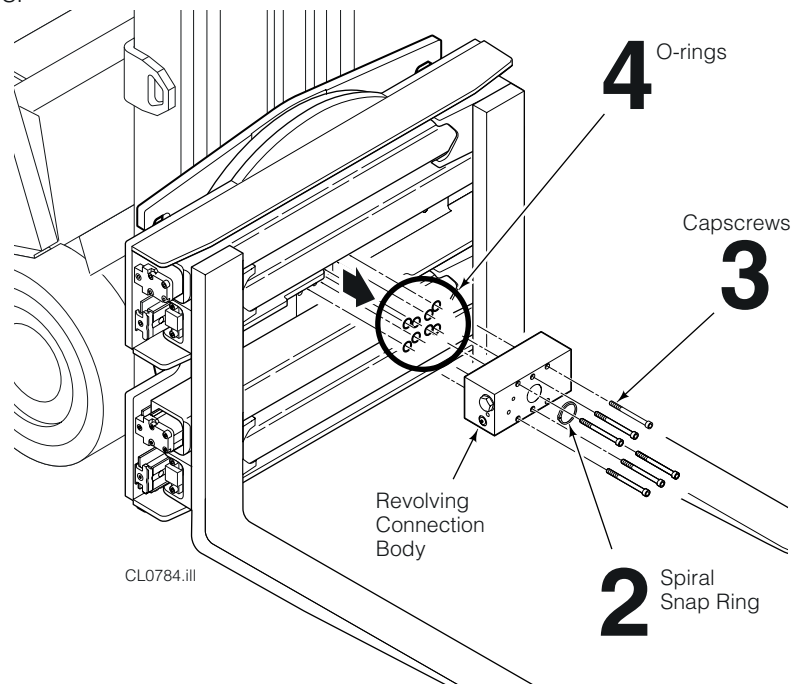
- 1 Position the arms at frame width.
- 2 Remove the spiral snap ring on the front of the revolving connection shaft. **CAUTION:** Remove all burrs and paint from the exposed shaft surface prior to removal from the body. **Burrs or paint chips pulled through the bore may damage the valve body.**
- 3 Remove the six capscrews fastening the revolving connection body to the upper and lower manifolds.
- 4 Remove the revolving connection body from the front of the attachment. Note the eight O-rings between the revolving connection body and the manifolds. For reassembly, tighten the capscrews to 15 ft.-lbs. (20 Nm).
CAUTION: DO NOT OVERTIGHTEN CAPSCREWS.
- 5 For reassembly, reverse the above procedures with the following exceptions:
 - Install eight new O-rings between the revolving connection body and manifolds.**NOTE:** Use petroleum jelly to hold the O-rings in place during installation.
 - Use a seal loader to reinstall the body onto the shaft.



WARNING: Before removing any hydraulic lines or components, relieve pressure in the attachment hydraulic system. Turn the truck off and move the auxiliary control valve several times in both directions.

Removing the Revolving Connection (attachment off truck)

- 1 Remove the revolving connection using the same procedures as in previous section, with the following exception:
 - After completing Step 2 in the previous section, remove the shaft from the rear of the body.



Part No. 214999

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Revolving Connection Service

1 Remove the cross-over relief valve cartridge from the end block. Remove the O-rings and back-up rings.

2 Remove the four two-piece seals from the revolving connection body using a hook-type brass seal removal tool (Cascade Part No. 674424).

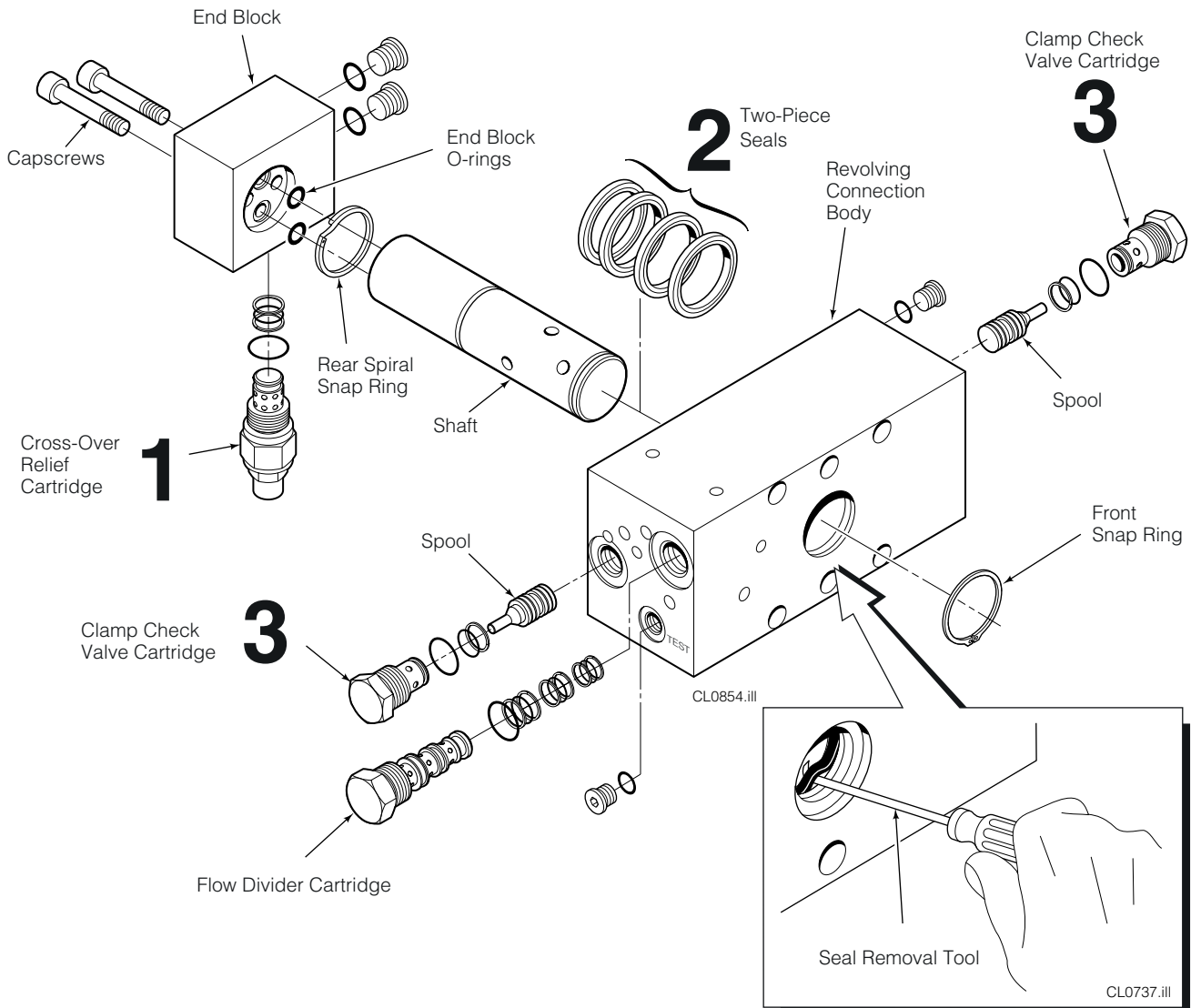
NOTE: Do not scratch or damage the grooved surfaces in the valve body.

3 Remove the clamp check valve cartridges and flow divider. Remove O-rings and back-up rings.

4 Clean all parts with cleaning solvent or kerosene and inspect the following:

- **Shaft** – Check the sealing surface of the shaft for minor surface imperfections. Remove with 320-grit emery paper. Sand the shaft radially (around), not along the length. Break the edges on the outer end of the shaft and the snap ring grooves with 320-grit emery paper. If severely worn, replace the shaft.
- **Body** – Check the seal grooves in the body for sharp nicks or projections. Remove minor imperfections with 320-grit emery paper. If severely worn, replace the body.

IMPORTANT: Service the revolving connection in a clean and dust-free work area.



5 For reassembly, reverse the previous procedures with the following exceptions:

- Install new O-rings and back-up rings on all valve cartridges. See illustration below for seal placement.



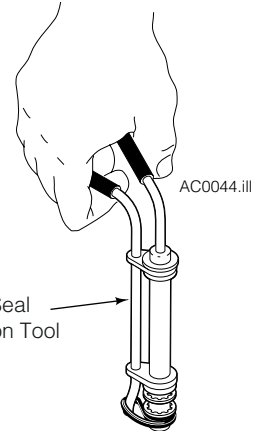
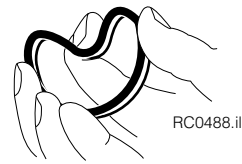
CAUTION: The shaft seals must be installed dry to work properly.

Clean all traces of hydraulic fluid and moisture from the seal grooves inside the revolving connection body using a non-petroleum based electronics contact cleaner.

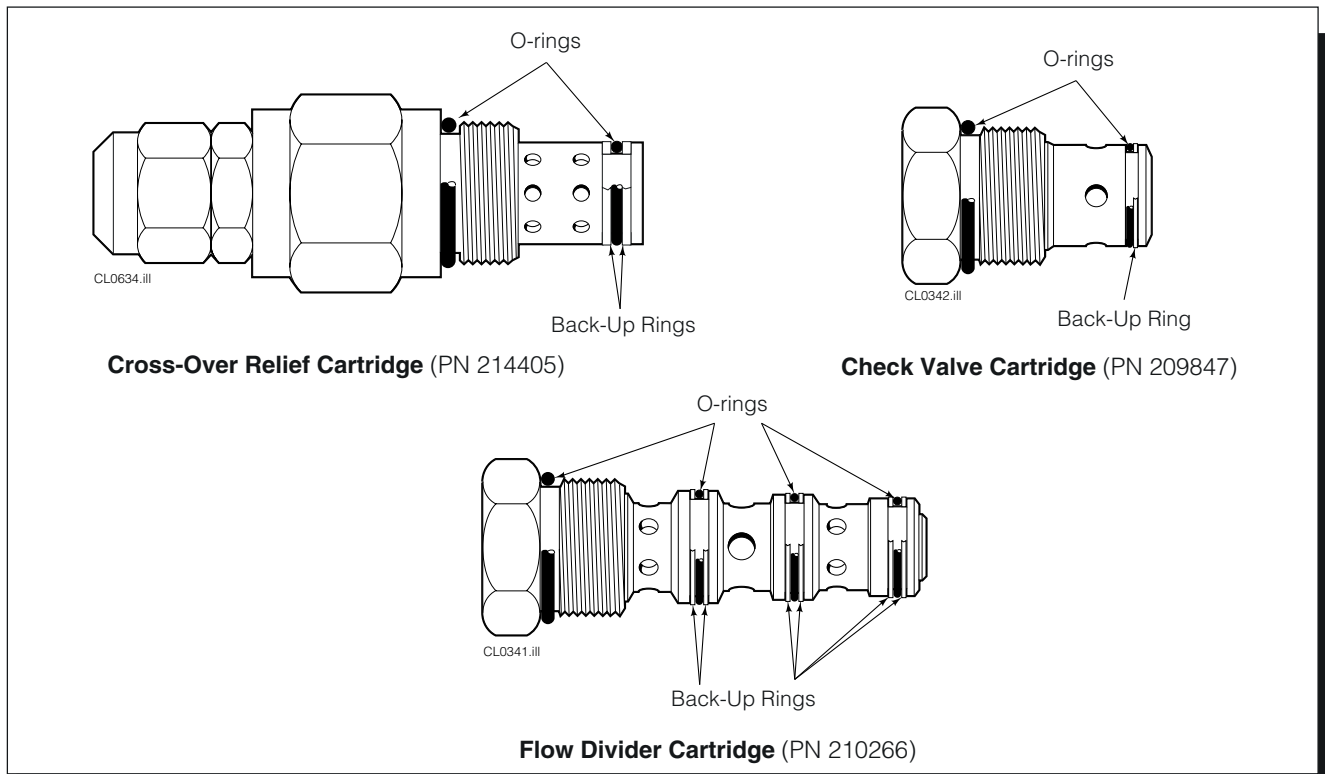
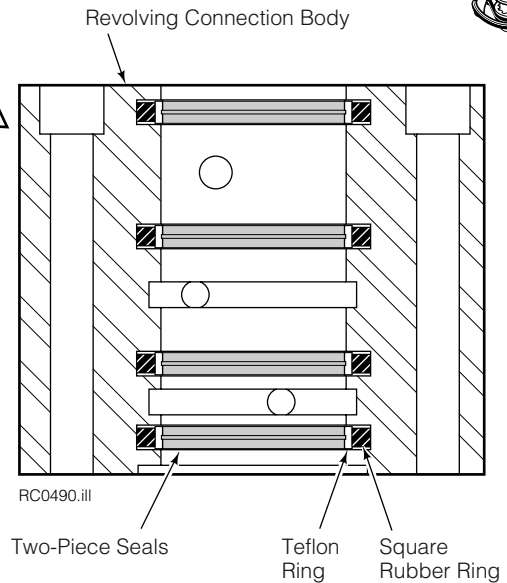
Clean hands thoroughly.

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Form seals into 'kidney' shape to install



- Install the square rubber rings into the grooves in the revolving connection body.
 - Install the Teflon rings over the rubber rings.
- NOTE:** Use seal installation tool (Cascade part number 599512) when installing internal seals. If seals are installed by hand, form into a 'kidney' shape to avoid sharp bends that can cause permanent damage to the seals.
- Lubricate shaft and body with STP or petroleum jelly prior to reassembly.
 - Insert shaft loader if available into body and carefully install shaft, displacing loader.
- NOTE:** Rotate the body to ease installation and prevent damage to seals.



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