labrieplus

Parts & Service **Bulletin**

To: **All Distributors**
Regional Sales Managers and National Sales Manager

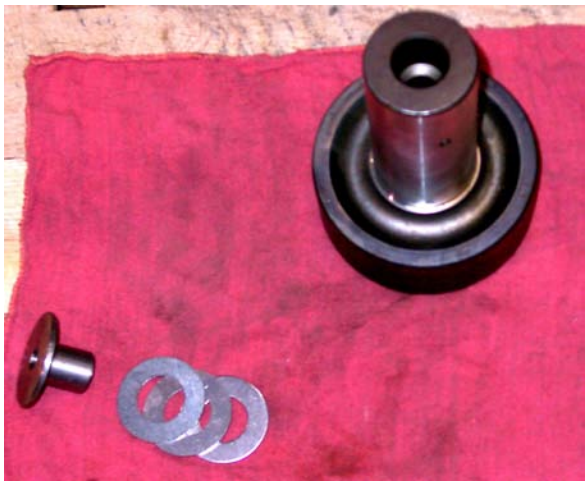
From: **Technical Support**

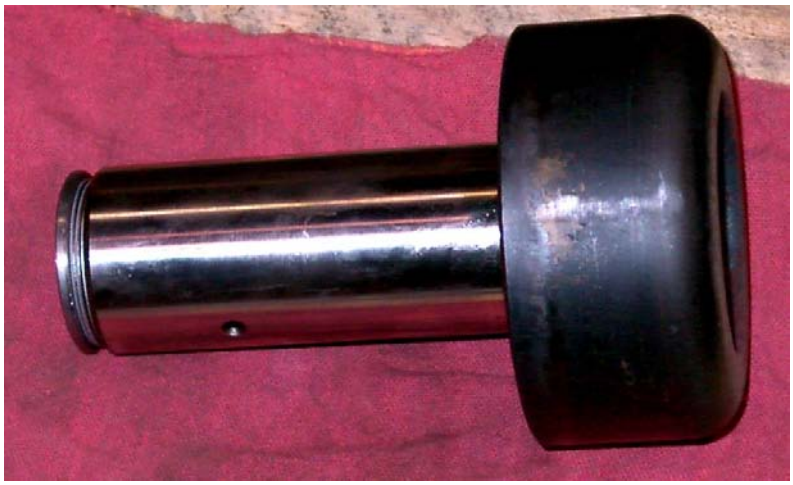
Model: **Leach Rear Loaders**

Subject: **Proper Carrier Roller Adjustment & Maintenance**

The purpose of adjusting the carrier rollers is to provide for smooth upward and downward travel of the carrier and packer panels with a minimum of side travel. In essence, the rollers are adjusted to align the carrier panel to the carrier operating cylinder stroke positions, and by shimming the rollers in a diagonal fashion, the carrier may be adjusted to allow for fabrication variances of the many components of the tailgate assembly.

When replacing a roller, always use the same amount of shims as originally produced; however re-shimming is usually required upon packer or carrier panel replacement. The rollers are to be adjusted by the use of shims (LabriePlus part number 100179) placed behind the roller, on the spacer cap (LabriePlus part number L100163). This will allow the roller to either be moved outward by the addition of shims, or moved inward by the subtraction of shims. It should be noted that the shims and spacer cap are used only as required; there is no set amount of shims per roller.

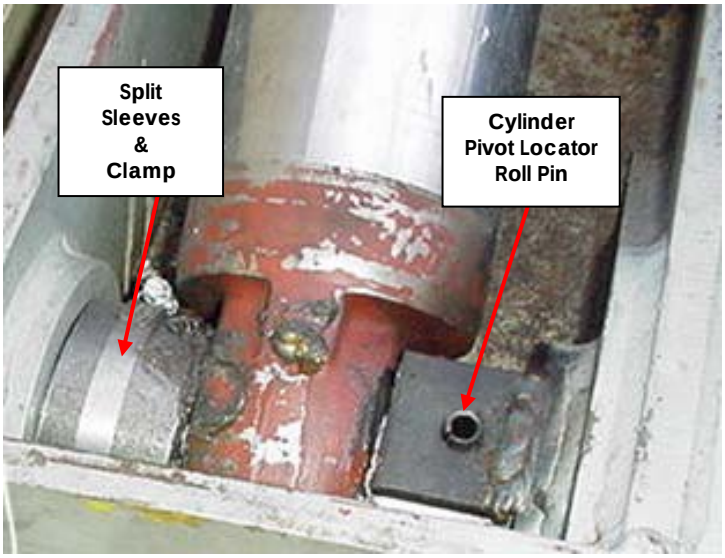




The rollers align the carrier by means of slight contact with the inside vertical face of the track channels (also known as the "web" of the track), and should never be allowed to apply excess force to the point of distorting the web. Over shimming of the rollers will result in track distortion. The preferred condition of rollers is to allow them to have a minor amount of side travel in the tracks rather than their being too tight. Proper shimming of the rollers will avoid costly damage to the structure of the tailgate.

Items that show wear or damage must be replaced prior to performing adjustments. The condition of the following items must be checked to ensure they are in good working condition.

- Rollers (LabriePlus part number 100171) – check the rolling face for damage, flat spots or excessive wear.
- Roller bushings (2RII, 2R-III LabriePlus part number L100189; Alpha, Alpha-III LabriePlus part number 100159) – check to ensure that the bushings are not worn to the point of allowing the roller to wobble.
- Carrier cylinder pivot (2RII, 2R-III only, LabriePlus part number L100157) – check to ensure that the bushings are not worn to the point of allowing the roller to wobble. Check to ensure the pivot is correctly located. Check for excessive wear at the carrier cylinder rod eye.
- Carrier cylinder pivot locator roll pin & split sleeves/clamp (2RII, 2R-III only, LabriePlus part numbers 102577, 100162, QUC00890) – Ensure that the roll pin is properly located through the locating tab into the carrier cylinder pivot. Check to ensure that the split sleeves are properly located and the clamp is tight.



DIAGNOSTIC PROCEDURE:

Careful and patient evaluation of the carrier panel in motion is the key to proper adjustment of the rollers. All rollers should be lubricated, and the carrier should be completely cycled at least four (4) times to gain an initial understanding of the side to side play of the carrier on the roller shafts. If this play is causing movement of more than ¼" at the point of the roller(s) when the carrier operating cylinders are in the fully retracted or extended position, then adjustment is necessary. Some movement of the carrier panel side to side during movement may be considered common.

The carrier panel may be operated in a manner to aid in the determination of adjustment. By turning the engine speed up system off, then operating the carrier, it is easier to determine movement due to the slowed speed of carrier. Also, if movement is detected, operate the carrier to a point approximately 2-4" from full retraction or extension of the carrier operating cylinders. Then, by "feathering" the control lever, operate the carrier panel until one cylinder is either fully retracted or extended. At this point, note how far the other cylinder is from this condition. In essence, the carrier must be square with the carrier cylinders; it does not need to be perfectly parallel with the tailgate sides.

The rollers should always be shimmed to allow the carrier to travel in the direction of the side to side movement, thus aligning the carrier with the cylinders. If the carrier shifts to the right at the bottom rollers, then the following adjustments would be made, depending upon the looseness of the rollers inside the tracks:

- Add shim(s) to the left bottom roller
- Remove shim(s) from the right bottom roller
- Add shim(s) to the right upper roller
- Remove shim(s) from the left upper roller

EXAMPLE:

The carrier operating cylinders are extended on an Alpha-III unit, and the controls are feathered until one cylinder is fully extended. The right cylinder extends fully, while the left cylinder is ¼" from full extension. To adjust, the top right and bottom left rollers should be shimmed, adding approximately two (2) shims under each roller, to align the carrier panel with the carrier operating cylinders. Removal of the same amount of shims from the opposite rollers may be necessary to avoid excessive tightness in the tracks.

To determine whether the carrier is either too loose or too tight, the rollers may be monitored during operation. If the rollers move in a side to side motion inside of the track

channels at the end of the carrier travel, then the rollers may be shimmed outward to take up excessive play. Also, watch for any flexing of the track channels on the outside of the tailgate. This will indicate an extremely over shimmed condition, which will result in deformation of the track channels, breakage of the bolts retaining the roller access covers, and binding of the rollers, causing flat spots on the rolling surface.

Another way of determining the tightness of the rollers is by applying spray paint to the web of the track channels, then cycling the carrier. If the paint is removed to the point of exposing and scuffing the metal of the track web, then the roller is too tight.

EXAMPLE:
On a 2R-III, the upper right roller is removing paint to the point of scuffing the track web. Also, the carrier shifts to the left about 5/8" while being retracted. To adjust, the upper right roller should have 2-3 shims removed. This will allow the carrier to move to the right at the top, aligning the carrier panel with carrier cylinders.

The rollers should be shimmed to accommodate for the narrowest dimension between the track channels. For instance, the top rollers should be checked for movement at the top of the carrier travel, while the bottom rollers should be checked for movement at the bottom of the track channel. Normally, the rollers are not shimmed to account for movement at the center of the tracks.

Some movement of the carrier in a side to side motion is common, especially while the carrier is in motion. However, any wear to the web portion of the track should be considered unacceptable.

NOTES:
When adding or removing shims, allow for each shim to accommodate for 1/8" of carrier movement. Do not attempt to shim more than one (1) roller at a time. After shimming rollers to acceptable limits, lubricate the rollers and operate the carrier and packer through at least five (5) complete cycles, with the engine speed up system activated, to insure proper adjustment of the carrier rollers has been achieved.

This procedure may have to be repeated multiple times to achieve proper adjustment of the rollers. Again, remember that the rollers are better left a little loose than too tight. Patience and experience are the best tools to allow for proper adjustment of the rollers.

If you have any queries or require any further information please contact the Labrie Service Department at (800) 231-2771.