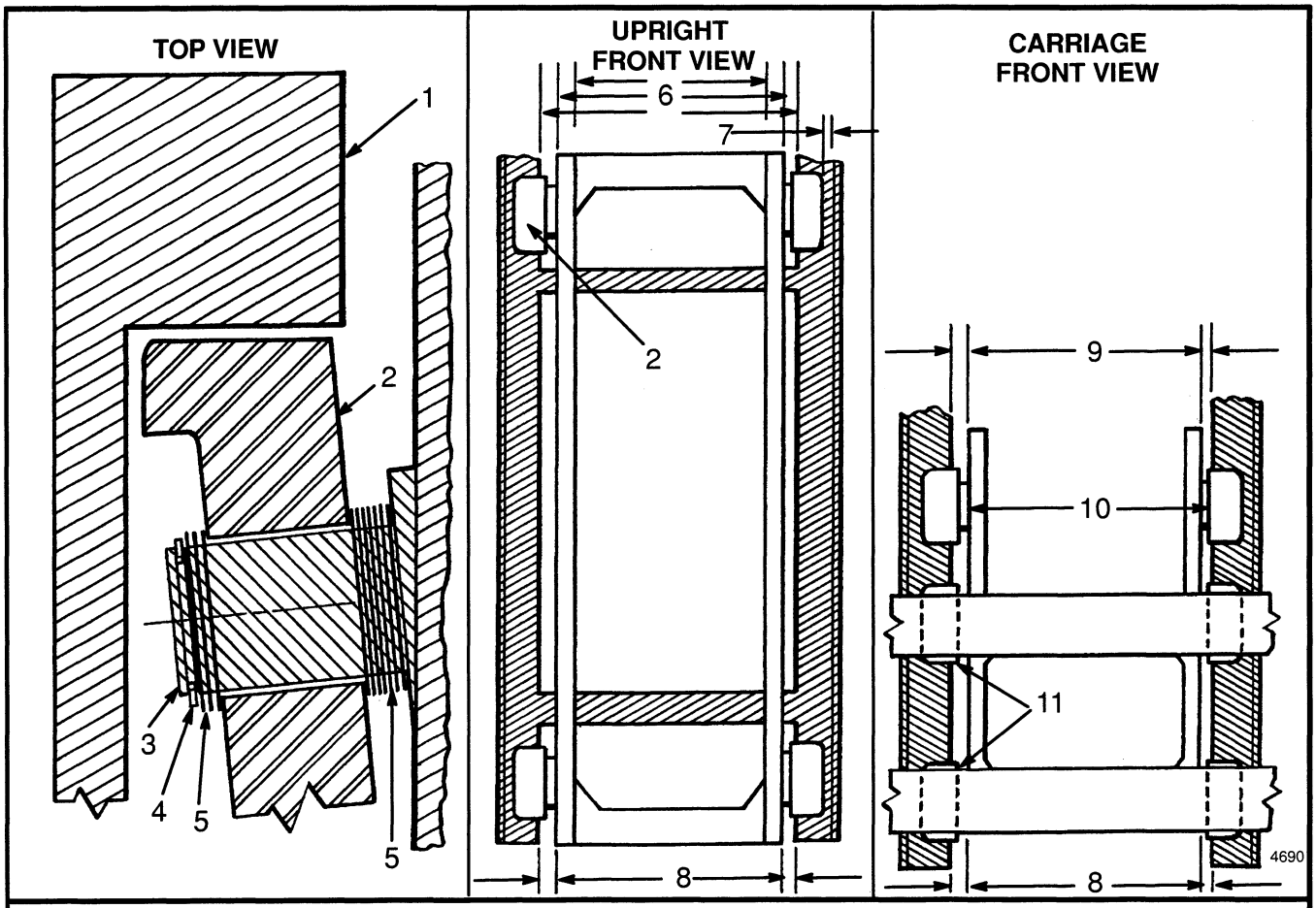
During assembly, the shim configuration will be approximately the same as before disassembly. Check the clearance and adjust for wear or change because of repairs.

1. The load rollers control the alignment of the mast weldments. The alignment conditions are given on a list below with the most important condition first. See FIGURE 19.

a. The vertical channels must be parallel to decrease wear.

b. The maximum clearance between the load roller and the channel at the tightest fit is 0.8 mm (0.030 in).

c. The number of shims under a load roller must be approximately the same as the stub shaft in the opposite side of the weldment. The weldments will be approximately in the center.



1. CHANNEL (WELDMENT)
2. LOAD ROLLER
3. STUB SHAFT
4. SNAP RING
5. SHIMS*
6. PARALLEL
7. 0.1 TO 0.8 mm (0.004 to 0.030 in)
8. EQUAL SPACE ± 1.5 mm (0.060 in)
9. PARALLEL
10. INSTALL ALL SHIMS ON THE OUTSIDE OF THE ROLLER UNDER THE SNAP RING
11. USE SHIMS TO ADJUST 0.13 to 0.5 mm (0.005 to 0.020 in) AT POINT OF TIGHTEST FIT*

*MOVE SHIMS FROM ONE SIDE OF THE ROLLER TO THE OTHER SIDE TO CHANGE THE POSITION OF THE ROLLER ON THE STUB SHAFT.

USE SHIMS TO KEEP THE CARRIAGE AND THE MAST WELDMENTS PARALLEL, TO GIVE APPROXIMATELY EQUAL SPACE BETWEEN BOTH SIDES OF THE CARRIAGE AND THE WELDMENTS AND TO GIVE THE CORRECT CLEARANCE AT THE TIGHTEST FIT.

FIGURE 19. MAST AND CARRIAGE ADJUSTMENTS

2. Adjust the mast load rollers as follows:

a. Use a prybar to move the weldments from side to side to measure the amount of movement. Repeat in a minimum of three different positions of the weldments.

b. Separate the weldments and change the shim configurations as needed. Assemble the weldments. Slide the weldment all the way to the top and bottom to find the tightest fit.

c. Repeat steps a and b until the maximum clearance at the point of tightest fit is 0.8 mm (0.030 in).

d. Measure the distance between the channels of the weldments on the top and bottom. Change shims to keep the distance equal between the top and bottom of the weldments. Also make sure that the weldments are parallel within 1.5 mm (0.060 in).

3. Adjust the strip bearings. Install or remove shims between the strip bearing and the channel. Adjust the strip bearings so that the maximum clearance at the point of tightest fit is 0.8 mm (0.030 in). See FIGURE 20.

CARRIAGE ADJUSTMENT (See FIGURE 19.)

1. Install the load rollers on the carriage. Install the shims for the rollers in the same sequence on the stub shaft as before disassembly. Do not put any shims under the top load rollers.

2. Use a crane to raise the carriage up the inner channel. Find the tightest fit between the load rollers and the inner channels.

3. Remove the carriage from the mast. Adjust the shim arrangement for each roller for clearance between the roller and the inner weldment. Maximum clearance is 0.5 mm (0.020 in) at the tightest fit. Repeat steps 2 and 3 if necessary.

4. Keep the shim arrangement on each side of the carriage approximately equal. The carriage must be parallel with the inner mast channel within ±1.5 mm (0.060 in).

⚠ CAUTION

Too much grease will cause the rollers to slide and wear flat areas on the rollers.

5. After adjustment, lubricate the channels with a thin layer of grease.

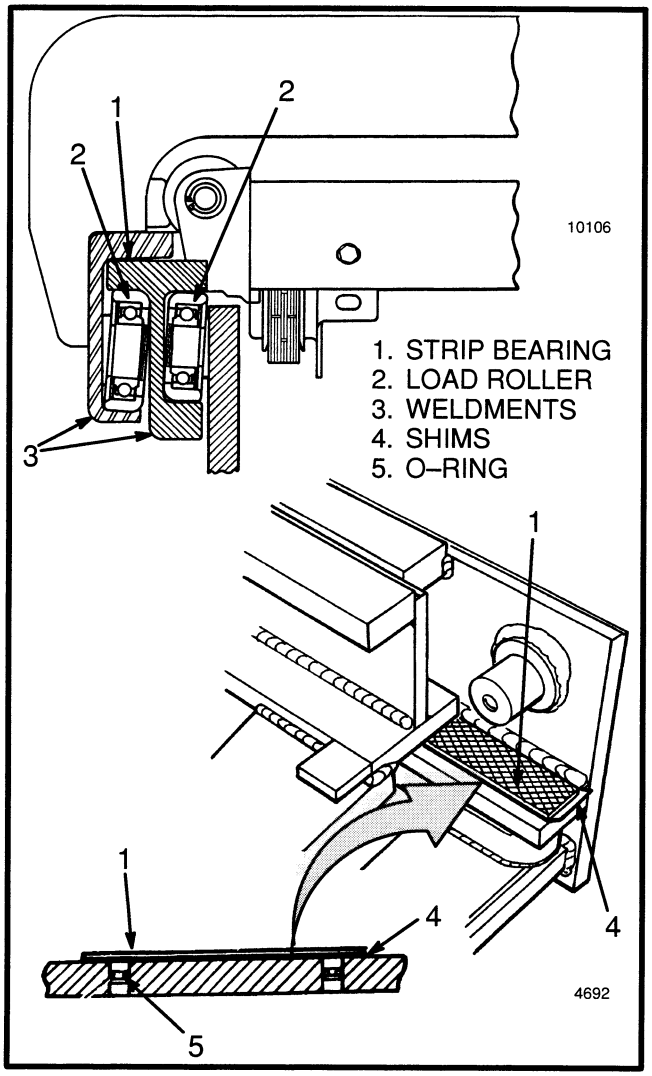


FIGURE 20. ADJUSTMENT OF THE STRIP BEARINGS

HEADER HOSE ARRANGEMENTS

Some lift trucks have auxiliary hydraulic functions that are fastened to the carriage. Examples of these auxiliary functions are a side–shift carriage or a roll clamp. These auxiliary functions need arrangements of header hoses for their operation. Most lift trucks with these auxiliary functions will have either one pair or two pairs of header hoses as shown in FIGURE 21. through FIGURE 26. These arrangements normally do not require adjustments after removal and installation.