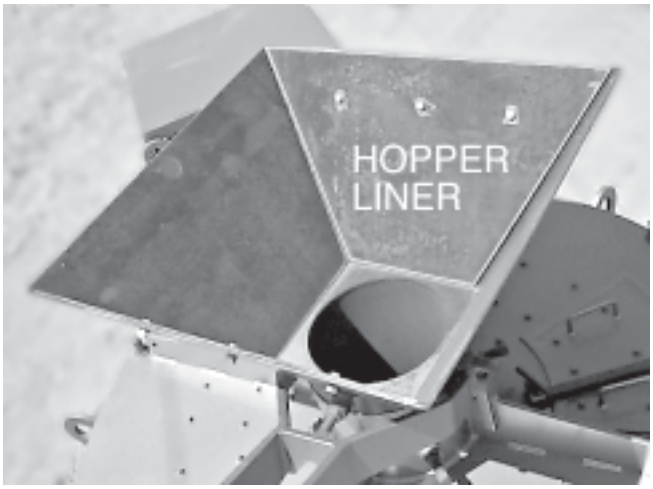
FEED HOPPER ADJUSTMENT AND MAINTENANCE

INTRODUCTION

Feed hopper liners are trapezoid shaped plates which protect the walls where feed material deflects into the hopper. Attached to the feed hopper tube is a feed tube liner which directs the material into the SuperChipper™ tube flange or onto shoe table. To maintain proper material flow as the feed tube length decreases due to wear, the hopper is adjusted lower. The feed tube liners need replacement when the maximum adjustment is reached (the hopper is as low as it can go).

REPLACING THE FEED HOPPER LINER

Replace the feed hopper liners when they wear through and the hopper starts to appear behind them. Simply remove the three cap screws, lift off the plate, and replace it. Most likely the cap screws will need replacement also.



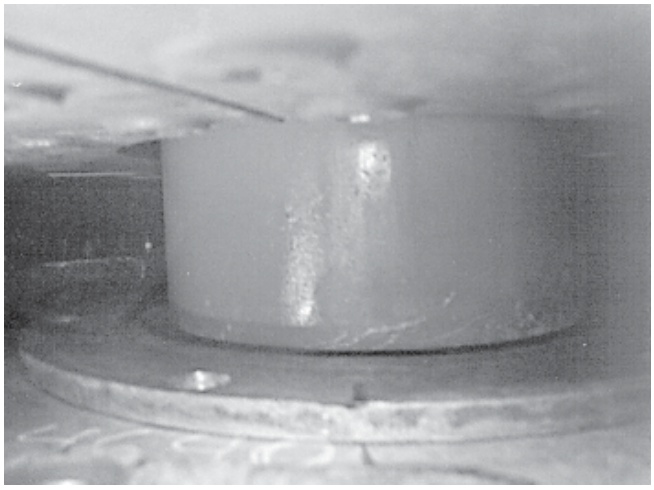
Feed hopper liner

ADJUSTING THE FEED TUBE DEPTH

An upper feed tube collar clamps to the feed tube with three or four square head set screws with locking nuts (collar screws). A second set of screws and locking nuts (lid screws) guide the feed tube where it penetrates the crusher lid. The end of the feed tube must be set to the proper depth and concentric with the tube flange on a SuperChipper™ rotor. To adjust the feed tube depth for the Model 35:

Collar screws and lid screws

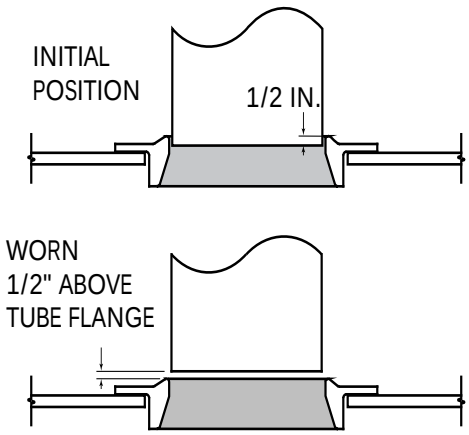
1. Check the lid screws with a wrench, they should be tight.
2. On some crushers you can look through the access door to verify the feed tube liner is set to the correct depth and centered above the rotor.



Feed tube liner viewed through access door.

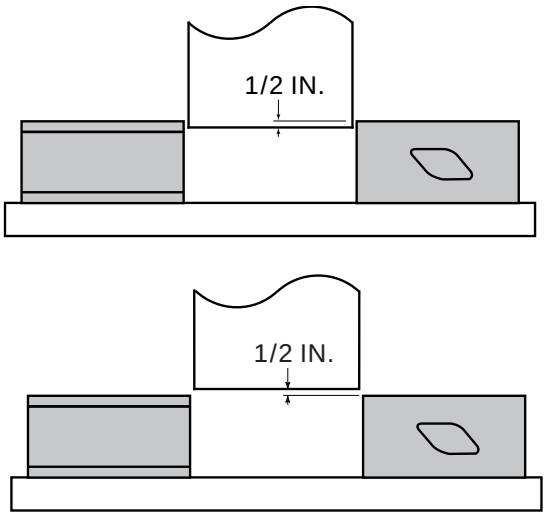
Center the feed tube liner inside a SuperChipper™ tube flange or above a shoe table feed disk by loosening and tightening opposite lid screws

For SuperChipper™ Rotors, the feed tube should be inserted to 1/2 inch below the top of the tube flange. Reposition the feed tube when the liner wears to 1/2 inch above the top of the tube flange.



Feed tube placement within 1/2 inch of the top of the tube flange for SuperChipper™ Rotors

For impeller shoe tables, the feed tube should be inserted to 1/2 inch below the shoe tops. Reposition the feed tube when the liner wears to 1/2 inch above the shoe tops.



Feed tube placement for Impeller Shoe Tables

NEW STYLE FEED HOPPER ADJUSTMENT

CEMCO introduced a new feed hopper in 1997. It adjusts up and down by turning a couple of large ACME thread screws. Follow these instructions to raise and lower the hopper.

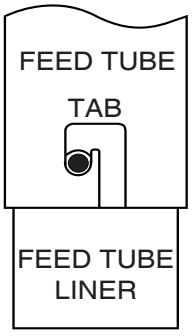
1. Loosen the lid screws.
2. Use the wrench provided to rotate the adjustment screws. Turn the screws clockwise to lower the hopper and counterclockwise to raise the hopper. If the hopper needs to move a large distance, alternate between screws by giving one a turn then the other a turn.
3. Secure the feed tube in position and center it in the rotor by tightening the square head lid screws.

New style hopper adjustment

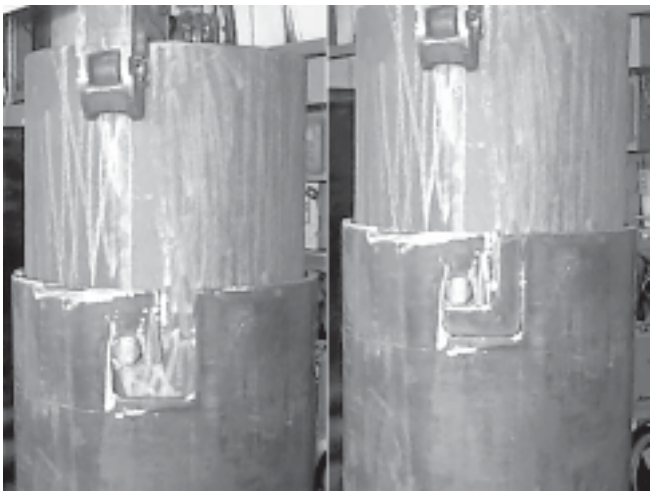
REPLACING THE FEED TUBE LINER

Never change the feed tube liner from below the crusher lid. Always remove the hopper and feed tube liner from above. Change the feed tube liner on the ground or in the shop.

The feed tube liner installs in the feed tube through four J-shaped slots. Once installed, the tabs cut from the slots are tack welded back in place with short, low penetration welds. To remove the feed tube, grind off the welds and remove the tabs. Insert the new feed tube liner and tack weld the tabs back in place.



Tab mount feed tube liner



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The feed tube liner above caused excessive tube flange wear. This tube flange lasted only 16 hours.

EXAMPLES OF WHAT NOT TO DO

The feed tube or feed tube liner directs material into the crusher rotor. Proper maintenance and adjustment maximizes casting life and results in more effective and efficient crushing.

Excess hopper liner wear or feed tube liner wear may be the result of the material falling too far before it enters the hopper. Sometimes breaking the fall with chains or metal obstructions will reduce hopper liner and feed tube liner wear.

This upper ramp was in the same rotor as the tube flange pictured above.

Non square feed tube liner improperly directs material into the rotor. This results in excess tube flange and upper ramp liner wear.